

AUTHOR/SUBJECT INDEX

3D

- 3-D endobronchial ultrasonography – a *post mortem* study (Andreassen), 473
- 3-D measurement of body tissues based on ultrasound images with 3-D spatial information (Huang), 1607
- 3-D ultrasonographic imaging of the cerebral ventricular system in very low birth weight infants (Haiden), 7
- 3-D ultrasound texture classification using run difference matrix (Chen), 763
- a mechanical instrument for 3D ultrasound probe calibration (Gee), 505
- a new scanning approach for limb extremities using a water bag in freehand 3-D ultrasound (Huang), 575 (Technical Note)
- a phantom with reduced complexity for spatial 3-D ultrasound calibration (Dandekar), 1083
- a review of calibration techniques for freehand 3-D ultrasound systems (Mercier), 143
- a review of calibration techniques for freehand 3-D ultrasound systems (Mercier), 449 (Review) – correct version
- automated quantitative volumetric breast ultrasound data-acquisition system (Shiple), 905
- comparison of calibration methods for spatial tracking of a 3-D ultrasound probe (Poon), 1095
- computer analysis of three-dimensional power angiography images of foetal cerebral, lung and placental circulation in normal and high-risk pregnancy (Dubiel), 321
- development and validation of an *in vivo* analysis tool to identify changes in carotid plaque tissue types in serial 3-D ultrasound scans (Coleman), 329
- display of spatially-registered Doppler spectral waveforms and three-dimensional vein graft geometry (Leotta), 1317
- dynamic three-dimensional visualization of the left ventricle by intracardiac echocardiography (Ding), 15
- fetal upper arm volume in predicting intrauterine growth restriction: a three-dimensional ultrasound study (Chang), 1435
- image-based cardiac gating for three-dimensional intravascular ultrasound imaging (Nadkarni), 53
- left ventricular wall motion analysis using real-time three-dimensional ultrasound (Kuo), 203
- measurement of anastomosis geometry in lower extremity bypass grafts with 3-D ultrasound imaging (Leotta), 1305
- prenatal diagnosis of fetal acrania using three-dimensional ultrasound (Liu), 175
- quantification of carotid plaque volume measurements using 3D ultrasound imaging (Landry), 751
- real-time numerical simulation of Doppler ultrasound in the presence of nonaxial flow (Khoshniat), 519

- RF and amplitude-based probe pressure correction for 3D ultrasound (Treece), 493
- segmentation of real-time three-dimensional ultrasound for quantification of ventricular function: a clinical study on right and left ventricles (Angelini), 1143
- speckle classification for sensorless freehand 3-D ultrasound (Hassenpflug), 1499
- staging bladder carcinoma by three-dimensional ultrasound rendering (Wagner), 301
- temporal calibration of freehand three-dimensional ultrasound using image alignment (Gooding), 919
- the efficacy assessment of thigh volume in predicting intrauterine fetal growth restriction by three-dimensional ultrasound (Chang), 883
- three-dimensional ultrasound biomicroscopy for xenograft growth analysis (Cheung), 865 (Clinical Note)

A

- Aarnio, J., Clement, G. T. and Hynynen, K.: a new ultrasound method for determining the acoustic phase shifts caused by the skull bone, 771
- Abbott, J. G.: discussion on the standards development process within IEC, 287 (Letter)
- Abergel, E., see Diebold, B.

ablation

- acoustic radiation force impulse imaging of the abdomen: demonstration of feasibility and utility (Fahey), 1185
- in vitro* ablation of cardiac valves using high-intensity focused ultrasound (Otsuka), 109
- miniaturized ultrasound arrays for interstitial ablation and imaging (Makin), 1539
- monitoring the formation of thermal lesions with heat-induced echo-strain imaging: a feasibility study (Souchon), 251
- monitoring stiffness changes in lesions after radiofrequency ablation at different temperatures and durations of ablation (Bharat), 415

acromioclavicular joint

- correlation of ultrasonographic findings to Tossy's and Rockwood's classification of acromioclavicular joint injuries (Heers), 725

acoustic radiation force

- acoustic radiation force impulse imaging of the abdomen: demonstration of feasibility and utility (Fahey), 1185
- sonic activation of molecularly-targeted nanoparticles accelerates transmembrane lipid delivery to cancer cells through contact-mediated mechanisms: implications for enhanced local drug delivery (Crowder), 1693

- Adam, D., Sapunar, M. and Burla, E.: on the relationship between encapsulated ultrasound contrast agent and pressure, 673

- Adam, D., see Ganor, Y.

adaptive brightness

- adaptive brightness transfer functions in echocardiography (Zwirn), 649

adolescents

comparison of phalangeal ultrasound and dual energy X-ray absorptiometry in healthy male and female adolescents (Halaba), 1617

Aglyamov, S. R., see Xie, H.

Aicardi, G., see Vignolo, M.

Akiyama, H., , see Mukai, S.

Akselrod, S., see Zwirn, G.

Alvarez-Clau. A. and Liste, F.: ultrasonographic characterization of the uterine artery in the nonestrus bitch (Alvarez-Clau), 1583

Ammann, J.-J., Apablaza, V., Galaz, B. and Flores, C.: ultrasonic sound velocity measurement in samples of soft materials through under-resonance excitation, 485

An, H. J., see Park, S. R.

anastomosis

display of spatially-registered Doppler spectral waveforms and three-dimensional vein graft geometry (Leotta), 1317

in vivo volumetric analysis of coronary stent using optical coherence tomography with a novel balloon occlusion-flushing catheter: a comparison with intravascular ultrasound (Kawase), 1343

measurement of anastomosis geometry in lower extremity bypass grafts with 3-D ultrasound imaging (Leotta), 1305

Anderson, T., see Bennett, M.

Anderson, T., see Butler, M. B.

Andreassen, A. H., Ellingsen, I., Nesje, L. B., Gravidal, K. and Ødegaard, S.: 3-D endobronchial ultrasonography – a *post mortem* study, 473

Angelini, E. D., Homma, S., Pearson, G., Holmes, J. W. and Laine, A. F.: segmentation of real-time three-dimensional ultrasound for quantification of ventricular function: a clinical study on right and left ventricles, 1143

Ansaloni, S., see Wood, A. K. W.

antibacterial

antibacterial effects of extracorporeal shock waves (Gerdesmeyer), 115

aorta

hypoechoic areas on ultrasound images of atheroma are not always diagnostic of fatty plaque (Tabel), 1013

non-invasive measurement of abdominal aortic aneurysms in intact mice by a high-frequency ultrasound imaging system (Martin-McNulty), 745

wall shear stress and related hemodynamic parameters in the fetal descending aorta derived from colour Doppler velocity profiles (Struijk), 1441

Apablaza, V., see Ammann, J.-J.

apoptosis

the alteration of protein profile of Walker 256 carcinoma cells during the apoptotic process induced by ultrasound (Tian), 121

Archip, N., Rohling, R., Cooperberg, P. and Tahmasebpour, H.: ultrasound image segmentation using spectral clustering, 1485

Arévalo, J., see Da Costa, A. G.

Armstrong, W. F., see Miller, D. L.

Arora, M., Junge, L. and Ohl, C. D.: cavitation cluster dynamics in shock-wave lithotripsy: Part 1. free field, 827

artefacts

a review of calibration techniques for freehand 3-D ultrasound systems (Mercier), 143

a review of calibration techniques for freehand 3-D ultrasound systems (Mercier), 449 (Review) – correct version

comparison of extended field of view and dual imaging ultrasound techniques: accuracy and reliability of distance measurements in phantom study (Ying), 79

curvature affects Doppler investigation of vessels: implications for clinical practice (Balbis), 65

image-based cardiac gating for three-dimensional intravascular ultrasound imaging (Nadkarni), 53

investigation of the effect of subcutaneous fat on image quality performance of 2D conventional imaging and tissue harmonic imaging (Browne), 957

on the potential of the Lagrangian speckle model estimator to characterize atherosclerotic plaques in endovascular elastography: *in vitro* experiments using an excised human carotid artery (Maurice), 85

reduction of stent artifacts using high-frequency harmonic ultrasound imaging (Frijlink), 1335

RF signals provide additional information on embolic events recorded during TCD monitoring (Cowe), 613

arterial disease

a general solution for catheter position effects for strain estimation in intravascular elastography (Shi), 1509

advantages in using multifrequency excitation of contrast microbubbles for enhancing echo particle image velocimetry techniques: initial numerical studies using rectangular and triangular waves (Zheng), 99

clinical validation of common carotid artery wall distension assessment based on multigate Doppler processing (Morganti), 937

development and validation of an *in vivo* analysis tool to identify changes in carotid plaque tissue types in serial 3-D ultrasound scans (Coleman), 329

display of spatially-registered Doppler spectral waveforms and three-dimensional vein graft geometry (Leotta), 1317

hypoechoic areas on ultrasound images of atheroma are not always diagnostic of fatty plaque (Tabel), 1013

in vivo volumetric analysis of coronary stent using optical coherence tomography with a novel balloon occlusion-flushing catheter: a comparison with intravascular ultrasound (Kawase), 1343

measurement of anastomosis geometry in lower extremity bypass grafts with 3-D ultrasound imaging (Leotta), 1305

on the potential of the Lagrangian speckle model estimator to characterize atherosclerotic plaques in endovascular elastography: *in vitro* experiments using an excised human carotid artery (Maurice), 85

quantification of carotid plaque volume measurements using 3D ultrasound imaging (Landry), 751

real-time numerical simulation of Doppler ultrasound in the presence of nonaxial flow (Khoshniat), 519

reduction of stent artifacts using high-frequency harmonic ultrasound imaging (Frijlink), 1335

- robustness of reconstructing the Young's modulus distribution of vulnerable atherosclerotic plaques using a parametric plaque model (Baldewsing), 1631
- semiquantitative analysis of ultrasonic cerebral perfusion imaging (Krogias), 1007
- transcranial ultrasound angiography (tUSA): a new approach for contrast specific imaging of intracranial arteries (Hölscher), 1001
- ultrasonic technique for imaging tissue vibrations: preliminary results (Sikdar), 221
- ultrasonic vibration detection with wavelets: preliminary results (Plett), 367
- ultrasonographic characterization of the uterine artery in the nonestrus bitch (Alvarez-Clau), 1583
- Aschkenasy, S. V., Muntwyler, J., van der Loo, B., Oechslin, E. and Jenni, R.: texture analysis in digitally-acquired echocardiographic images: the effect of Jpeg compression and video storage, 361
- Ashfaq, M., see Scheipers, U.
- Assia, E. I., see Topaz, M.
- Atkins, B. Z., see Kuo, J.

atrial fibrillation

- Doppler echocardiography flow-velocity image analysis for patients with atrial fibrillation (Greenspan), 1031

attenuation

- an ultrasonic microbubble semi-intermodulated imaging technique (Wu), 1199
- bone microstructure and elastic tissue properties are reflected in QUS axial transmission measurements (Raum), 1225
- broadband attenuation and nonlinear propagation in biological fluids: an experimental facility and measurements (Verma), 1723
- broadband measurements of the frequency dependence of attenuation coefficient and velocity in amniotic fluid, urine and human serum albumin solutions (Verma), 1375
- detection of blood coagulation and clot formation using quantitative ultrasonic parameters (Huang), 1567
- estimating myocardial attenuation from M-mode ultrasonic backscatter (Baldwin), 477
- investigation of the effect of subcutaneous fat on image quality performance of 2D conventional imaging and tissue harmonic imaging (Browne), 957
- on the suitability of broadband attenuation measurement for characterizing contrast microbubbles (Chatterjee), 781
- pressure-dependent attenuation with microbubbles at low mechanical index (Tang), 377

B

backscatter

- absolute measurement of ultrasonic backscatter from single microbubbles (Sboros), 1063
- anisotropy of apparent backscatter in the short-axis view of mouse hearts (Holland), 1623
- detection of blood coagulation and clot formation using quantitative ultrasonic parameters (Huang), 1567

- on the relationship between encapsulated ultrasound contrast agent and pressure (Adam), 673
- time and pressure dependence of acoustic signals radiated from microbubbles (Ganor), 1367
- Baez, E., Strathmann, K., Vetter, M., Madjar, H. and Hackelöer, B.-J.: likelihood of malignancy in breast lesions characterised by ultrasound with a combined diagnostic score, 179
- Bailey, M. R., Pishchalnikov, Y. A., Sapozhnikov, O. A., Cleveland, R. O., McAteer, J. A., Miller, N. A., Pishchalnikova, I. V., Connors, B. A., Crum, L. A. and Evan, A. P.: cavitation detection during shock-wave lithotripsy, 1245
- Balbis, S., Roatta, S. and Guiot, C.: curvature affects Doppler investigation of vessels: implications for clinical practice, 65
- Baldewsing, R. A., Mastik, F., Schaar, J. A. and van der Steen, A. F. W.: robustness of reconstructing the Young's modulus distribution of vulnerable atherosclerotic plaques using a parametric plaque model, 1631
- Baldwin, S. L., Marutyan, K. R., Yang, M., Wallace, K. D., Holland, M. R. and Miller, J. G.: estimating myocardial attenuation from M-mode ultrasonic backscatter, 477
- Bamber, J. C., see Miller, N. R.
- Bambi, G., see Krams, R.
- Bang, J., see Selbekk, T.
- Barbieri, A. M., see Crowder, K. C.
- Barbieri, C. H., see Rosim, G. C.
- Barkmann, R., see Haïat, G.
- Barthe, P. G. see Makin, I. R. S.
- Bartsch, Jr., G., see Wagner, B.
- Bazou, D., Kuznetsova, L. A. and Coakley, W. T.: physical environment of 2-D animal cell aggregates formed in a short pathlength ultrasound standing wave trap, 423
- Beach, K. W., see Leotta, D. F.
- Beach, K. W., see Plett, M.
- Beach, K. W., see Sikdar, S.
- beam steering
- effects of beam steering in pulsed-wave ultrasound velocity estimation (Steinman), 1073
- Bekeredjian, R., Chen, S., Grayburn, P. A. and Shohet, R. V.: augmentation of cardiac protein delivery using ultrasound targeted microbubble destruction, 687
- Bennett, M., McLaughlin, S., Anderson, T. and McDicken, N.: empirical mode decomposition and tissue harmonic imaging, 1051
- Bergelin, R. O., see Leotta, D. F.
- Berger, A., see Haiden, N.
- Bertrand, M., see Souchon, R.

Bharat, S., Techavipoo, U., Kiss, M. Z., Liu, W. and Varghese, T.: monitoring stiffness changes in lesions after radiofrequency ablation at different temperatures and durations of ablation, 415

Bilgili, Y., see Unal, B.

bioeffects

a new immobilisation method to arrange particles in a gel matrix by ultrasound standing waves (Gherardini), 261

acoustic cavitation in phacoemulsification and the role of antioxidants (Topaz), 1123

antibacterial effects of extracorporeal shock waves (Gerdesmeyer), 115

comparative study of the efficacy of the topical application of hydrocortisone, therapeutic ultrasound and phonophoresis on the tissue repair process in rat tendons (Koeke), 345

early gene response to low-intensity pulsed ultrasound in rat osteoblastic cells (Sena), 703

effect of ultrasound on nucleated erythrocytes (Milowska), 129

effectiveness of lipid microbubbles and ultrasound in declotting thrombosis (Xie), 979

high-speed optical observations of contrast agent destruction (Bouakaz), 391

hyperecho in ultrasound images of HIFU therapy: involvement of cavitation (Rabkin), 947

in vitro ablation of cardiac valves using high-intensity focused ultrasound (Otsuka), 109

influence of ultrasound operating parameters on ultrasound-induced thrombolysis *in vitro* (Schäfer), 841

insonation facilitates plasmid DNA transfection into the central nervous system and microbubbles enhance the effect (Manome), 693

investigation of intensity thresholds for ultrasound tissue erosion (Xu), 1673

involvement of Adenosine 5'-Triphosphate in ultrasound-induced fracture repair (Hayton), 1131

low-intensity pulsed ultrasound: effects on nonunions (Gebauer), 1391

manipulation of cells using an ultrasonic pressure field (Haake), 857

microfluidic sonicator for real-time disruption of eukaryotic cells and bacterial spores for DNA analysis (Marentis), 1265

miniaturized ultrasound arrays for interstitial ablation and imaging (Makin), 1539

modelling of the heat distribution in the intervertebral disk (Persson), 709

monitoring the formation of thermal lesions with heat-induced echo-strain imaging: a feasibility study (Souchon), 251

MRI-guided targeted blood-brain barrier disruption with focused ultrasound: histological findings in rabbits (McDannold), 1527

MRI-guided ultrasonic heating allows spatial control of exogenous luciferase in canine prostate (Silcox), 965

physical environment of 2-D animal cell aggregates formed in a short pathlength ultrasound standing wave trap (Bazou), 423

synergistic effect of ultrasound and phthalocyanines on nucleated erythrocytes *in vitro* (Milowska), 1707

the alteration of protein profile of Walker 256 carcinoma cells during the apoptotic process induced by ultrasound (Tian), 121

the antivasular action of physiotherapy ultrasound on murine tumors (Wood), 1403

- the effect of low-intensity pulsed ultrasound on repair of epithelial cell monolayers *in vitro* (Hill), 1701
- the effect of sonication on simulated osteoarthritis. Part 1: effects of 1 MHz ultrasound on uptake of hyaluronan into the rabbit synovium (Park), 1551
- the effect of sonication on simulated osteoarthritis. Part 11: alleviation of osteoarthritis pathogenesis by 1 MHz ultrasound with simultaneous hyaluronate injection (Park), 1559
- the effects of low-intensity ultrasound on growing bone after sciatic neurectomy (Yang), 431
- the effects of residual temperature rise on ultrasound heating (Karagoz), 1665
- the effects of therapeutic ultrasound on heart rate variability: a placebo controlled trial (Nacitarhan), 643
- the influence of agent delivery mode on cardiomyocyte injury induced by myocardial contrast echocardiography in rats (Miller), 1257
- thermal assessment of 40-MHz pulsed Doppler ultrasound in human eye (Cucevic), 565
- transforming growth factor- β_1 mediates the effects of low-intensity pulsed ultrasound in chondrocytes (Mukai), 1713
- ultrasound-microbubble-induced neovascularization in mouse skeletal muscle (Chappell), 1411
- vascular effects induced by combined 1-MHz ultrasound and microbubble contrast agent treatments *in vivo* (Hwang), 553

biomicroscopy

- determination of the elasticity coefficient for a single trabecula of a cancellous bone: scanning acoustic microscopy approach (Litniewski), 1361
- monitoring structural changes in cells with high-frequency ultrasound signal statistics (Tunis), 1041
- non-invasive measurement of abdominal aortic aneurysms in intact mice by a high-frequency ultrasound imaging system (Martin-McNulty), 745
- reduction of stent artifacts using high-frequency harmonic ultrasound imaging (Frijlink), 1335
- thermal assessment of 40-MHz pulsed Doppler ultrasound in human eye (Cucevic), 565
- three-dimensional ultrasound biomicroscopy for xenograft growth analysis (Cheung), 865 (Clinical Note)

bladder

- identification of the layers of the bladder wall on high-frequency endoluminal ultrasonography by a needle puncture experiment (Horiuchi), 307
- staging bladder carcinoma by three-dimensional ultrasound rendering (Wagner), 301
- Blankensteijn, J. D.: teaching manual of color duplex sonography, a workbook on color duplex ultrasound and echocardiography (2nd edition), 875 (Book Review)
- Bloch, S. H., Short, R. E., Ferrara, K. W. and Wisner, E. R.: the effect of size on the acoustic response of polymer-shelled contrast agents, 439 (Technical Note)
- Blomley, M. J. K., see Kodama, T.

blood flow

- acceleration time in the fetal middle cerebral artery during the second half of pregnancy (Da Costa), 317

- advantages in using multifrequency excitation of contrast microbubbles for enhancing echo particle image velocimetry techniques: initial numerical studies using rectangular and triangular waves (Zheng), 99
- cerebral blood flow volume measurements with ultrasound: interobserver reproducibility in pre-term and term neonates (Ehehalt), 191
- cerebral hemodynamic change and intraventricular hemorrhage in very low birth weight infants with patent ductus arteriosus (Jim), 197
- clinical validation of common carotid artery wall distension assessment based on multigate Doppler processing (Morganti), 937
- comparison of different mathematical models to analyze diminution kinetics of ultrasound contrast enhancement in a flow phantom (Meyer-Wiethe), 93
- computer analysis of three-dimensional power angiography images of foetal cerebral, lung and placental circulation in normal and high-risk pregnancy (Dubiel), 321
- curvature affects Doppler investigation of vessels: implications for clinical practice (Balbis), 65
- display of spatially-registered Doppler spectral waveforms and three-dimensional vein graft geometry (Leotta), 1317
- Doppler echocardiography flow-velocity image analysis for patients with atrial fibrillation (Greenspan), 1031
- Doppler waveforms: the relation between ductus venosus and inferior vena cava (Zhang), 1173
- effect of vessel curvature on Doppler derived velocity profiles and fluid flow (Krams), 663
- effects of beam steering in pulsed-wave ultrasound velocity estimation (Steinman), 1073
- fetal hemodynamics evaluated by Doppler velocimetry in the second half of pregnancy (Da Costa), 1023
- limits of uncertainty in measured values of embolus-to-blood ratios in dual-frequency TCD recordings due to nonidentical sample volume shapes (Evans), 233
- modeling ultrasound contrast measurement of blood flow and perfusion in biological tissue (Thijssen), 279
- normal reference intervals and ranges of side-to-side and day-to-day variability of ocular blood flow Doppler parameters (Ustymowicz), 895
- real-time numerical simulation of Doppler ultrasound in the presence of nonaxial flow (Khoshniat), 519
- RF signals provide additional information on embolic events recorded during TCD monitoring (Cowe), 613
- semiquantitative analysis of ultrasonic cerebral perfusion imaging (Krogias), 1007
- transcranial ultrasound angiography (tUSA): a new approach for contrast specific imaging of intracranial arteries (Hölscher), 1001
- ultrasonographic characterization of the uterine artery in the nonestrus bitch (Alvarez-Clau), 1583
- wall shear stress and related hemodynamic parameters in the fetal descending aorta derived from colour Doppler velocity profiles (Struijk), 1441
- Bogachev, K. M., see Miller, N. R.

bone

- a new ultrasound method for determining the acoustic phase shifts caused by the skull bone (Aarnio), 771

bone microstructure and elastic tissue properties are reflected in QUS axial transmission measurements (Raum), 1225

comparison of phalangeal ultrasound and dual energy X-ray absorptiometry in healthy male and female adolescents (Halaba), 1617

comparison of three ultrasonic axial transmission methods for bone assessment (Muller), 633

correlation of ultrasonographic findings to Tossy's and Rockwood's classification of acromioclavicular joint injuries (Heers), 725

determination of the elasticity coefficient for a single trabecula of a cancellous bone: scanning acoustic microscopy approach (Litniewski), 1361

early gene response to low-intensity pulsed ultrasound in rat osteoblastic cells (Sena), 703

fetal spine ossification: the gender and individual differences illustrated by ultrasonography (Vignolo), 733

in vitro speed of sound measurement at intact human femur specimens (Haïat), 987

involvement of Adenosine 5'-Triphosphate in ultrasound-induced fracture repair (Hayton), 1131

low-intensity pulsed ultrasound: effects on nonunions (Gebauer), 1391

the ability of peripheral quantitative ultrasound to identify patients with low bone mineral density in the hip or spine (Cook), 625

the effects of low-intensity ultrasound on growing bone after sciatic neurectomy (Yang), 431

Borggrefe, M., see Poerner, T. C.

Bossy, E., see Muller, M.

Bossy, E., see Raum, K.

Bouakaz, A., see Vlaanderen, E.

Bouakaz, A., Versluis, M. and de Jong, N.: high-speed optical observations of contrast agent destruction, 391

Bouchox, G., see Souchon, R.

Boughner, D., see Nadkarni, S. K.

Bozzato, A., see Scheipers, U.

brain

acceleration time in the fetal middle cerebral artery during the second half of pregnancy (Da Costa), 317

cerebral blood flow volume measurements with ultrasound: interobserver reproducibility in pre-term and term neonates (Ehehalt), 191

cerebral hemodynamic change and intraventricular hemorrhage in very low birth weight infants with patent ductus arteriosus (Jim), 197

computer analysis of three-dimensional power angiography images of foetal cerebral, lung and placental circulation in normal and high-risk pregnancy (Dubiel), 321

strain processing of intraoperative ultrasound images of brain tumours: initial results (Selbekk), 45

limits of uncertainty in measured values of embolus-to-blood ratios in dual-frequency TCD recordings due to nonidentical sample volume shapes (Evans), 233

multiplanar transcranial ultrasound imaging: standards, landmarks and correlation with magnetic resonance imaging (Kern), 311

semiquantitative analysis of ultrasonic cerebral perfusion imaging (Krogias), 1007

Brayman, A. A., see Hwang, J. H.

breast

3-D ultrasound texture classification using run difference matrix (Chen), 763
 automated quantitative volumetric breast ultrasound data-acquisition system (Shipley), 905

cell competition algorithm: a new segmentation algorithm for multiple objects with irregular boundaries in ultrasound images (Chen), 1647

comparative evaluation of strain-based and model-based modulus elastography (Doyley), 787

likelihood of malignancy in breast lesions characterised by ultrasound with a combined diagnostic score (Baez), 179

ultrasound morphology of invasive lobular breast cancer is different compared with other types of breast cancer (Waterman), 167

Breborowicz, G. H., see Dubiel, M.

Brekken, R. A., see Korpanty, G.

Bromley, P., see Silcox, C. E.

bronchus

3-D endobronchial ultrasonography – a *post mortem* study (Andreassen), 473

Brown, A. S., see Cheung, A. M. Y.

Brown, A. S., see Cucevic, V.

Browne J. E., Watson, A. J., Hoskins, P. R. and Elliott, A. T.: investigation of the effect of subcutaneous fat on image quality performance of 2D conventional imaging and tissue harmonic imaging, 957

bruits

ultrasonic technique for imaging tissue vibrations: preliminary results (Sikdar), 221

ultrasonic vibration detection with wavelets: preliminary results (Plett), 367

Brusseau, É., see Maurice, R. L.

Buckley, K. A., see Hayton, M. J.

Burkhoff, D., see Otsuka, R.

Burla, E., see Adam, D.

Burns, P. N., see Eckersley, R. J.

Butler, M. B., Moran, C. M., Anderson, T., Cunningham, C., Ross, J. A., Easson, W. J., Fox, K. A. A. and McDicken, W. N.: laser Doppler anemometry measurements of the shear stresses on ultrasonic contrast agent microbubbles attached to agar, 545

C

Cain, C. A., see Xu, Z.

Calabro, R. see Di Salvo, G.

Cangür, H., see Meyer-Wiethe, K.

Cardaropoli, D., see Di Salvo, G.

cardiac valve

in vitro ablation of cardiac valves using high-intensity focused ultrasound (Otsuka), 109

cardiography,

adaptive brightness transfer functions in echocardiography (Zwirn), 649

anisotropy of apparent backscatter in the short-axis view of mouse hearts (Holland), 1623

diabetes and diastolic function: stiffness and relaxation from transmitral flow (Riordan), 1589

Doppler echocardiography flow-velocity image analysis for patients with atrial fibrillation (Greenspan), 1031

dynamic three-dimensional visualization of the left ventricle by intracardiac echocardiography (Ding), 15

estimating myocardial attenuation from M-mode ultrasonic backscatter (Baldwin), 477

evaluation of cardiac function by tissue Doppler echocardiography: hemodynamic determinants and clinical application (Yu), 23

fetal arrhythmias: natural history and management (Vergani), 1

hypoechoic areas on ultrasound images of atheroma are not always diagnostic of fatty plaque (Tabel), 1013

left ventricular wall motion analysis using real-time three-dimensional ultrasound (Kuo), 203

optimisation of factor analysis of the left ventricle in echocardiography for detecting wall motion abnormalities (Diebold), 1597

physiological range of mechanical synchronicity of the human heart: comparison between different echocardiographic assessment modalities (Poerner), 1163

quantification of regional left and right ventricular longitudinal function in 75 normal fetuses using ultrasound-based strain rate and strain imaging (Di Salvo), 1159

segmentation of real-time three-dimensional ultrasound for quantification of ventricular function: a clinical study on right and left ventricles (Angelini), 1143

texture analysis in digitally-acquired echocardiographic images: the effect of Jpeg compression and video storage (Aschkenasy), 361

the influence of agent delivery mode on cardiomyocyte injury induced by myocardial contrast echocardiography in rats (Miller), 1257

carotid

clinical validation of common carotid artery wall distension assessment based on multigate Doppler processing (Morganti), 937

development and validation of an *in vivo* analysis tool to identify changes in carotid plaque tissue types in serial 3-D ultrasound scans (Coleman), 329

on the potential of the Lagrangian speckle model estimator to characterize atherosclerotic plaques in endovascular elastography: *in vitro* experiments using an excised human carotid artery (Maurice), 85

quantification of carotid plaque volume measurements using 3D ultrasound imaging (Landry), 751

real-time numerical simulation of Doppler ultrasound in the presence of nonaxial flow (Khoshniat), 519

Carrinho, P. M., see Koeke, P. U.

Caso, P., see Di Salvo, G.

Cathignol, D., see Souchon, R.

cavitation

acoustic cavitation in phacoemulsification and the role of antioxidants (Topaz), 1123

cavitation cluster dynamics in shock-wave lithotripsy: Part 1. free field (Arora), 827

cavitation detection during shock-wave lithotripsy (Bailey), 1245

hyperecho in ultrasound images of HIFU therapy: involvement of cavitation (Rabkin), 947

influence of ultrasound operating parameters on ultrasound-induced thrombolysis *in vitro* (Schäfer), 841

investigation of intensity thresholds for ultrasound tissue erosion (Xu), 1673

synergistic effect of ultrasound and phthalocyanines on nucleated erythrocytes *in vitro* (Milowska), 1707

the influence of agent delivery mode on cardiomyocyte injury induced by myocardial contrast echocardiography in rats (Miller), 1257

vascular effects induced by combined 1-MHz ultrasound and microbubble contrast agent treatments *in vivo* (Hwang), 553

Cavouras, D., see Tsantis, S.

cell immobilisation

a new immobilisation method to arrange particles in a gel matrix by ultrasound standing waves (Gherardini), 261

physical environment of 2-D animal cell aggregates formed in a short pathlength ultrasound standing wave trap (Bazou), 423

cell structure

microfluidic sonicator for real-time disruption of eukaryotic cells and bacterial spores for DNA analysis (Marentis), 1265

monitoring structural changes in cells with high-frequency ultrasound signal statistics (Tunis), 1041

Chan, C., Lam, F. and Rohling, R.: a needle tracking device for ultrasound guided percutaneous procedures, 1469

Chandelier, F., see Raum, K.

Chandraratna, P. A., see Tabel, G. M.

Chang, C.-H., see Liu, I.-F.

Chang, C.-H., Yu, C.-H., Ko, H.-C., Chen, C.-L. and Chang, F.-M.: the efficacy assessment of thigh volume in predicting intrauterine fetal growth restriction by three-dimensional ultrasound, 883

Chang, C.-H., Yu, C.-H., Ko, H.-C., Chen, C.-L. and Chang, F.-M.: fetal upper arm volume in predicting intrauterine growth restriction: a three-dimensional ultrasound study, 1435

Chang, C.-S., see Chen, W.-M.

Chang, F.-M., see Chang, C.-H.

Chang, F.-M., see Chang, C.-H.

Chang, F.-M., see Liu, I.-F.

Chang, J.-H., see Jim, W.-T.

- Chang, R.-F., see Chen, W.-M.
- Chapelon, J. Y., see Curiel, L.
- Chapelon, J.-Y., see Souchon, R.
- Chappell, J. C., Klibanov, A. L. and Price, R. J.: ultrasound-microbubble-induced neovascularization in mouse skeletal muscle, 1411
- Chatterjee, D., Sarkar, K., Jain, P. and Schreppler, N. E.: on the suitability of broadband attenuation measurement for characterizing contrast microbubbles, 781
- Chavrier, F., see Lafon, C.
- Chen, C. S. K., see Chen, C.-M.
- Chen, C.-H., see Yu, W.-C.
- Chen, C.-L., see Chang, C.-H.
- Chen, C.-L., see Chang, C.-H.
- Chen, C.-M., Chou, Y.-H., Chen, C. S. K., Cheng, J.-Z., Ou, Y.-F., Yeh, F.-C. and Chen, K.-W.: cell competition algorithm: a new segmentation algorithm for multiple objects with irregular boundaries in ultrasound images, 1647
- Chen, D.-R., see Chen, W.-M.
- Chen, K.-W., see Chen, C.-M.
- Chen, M.-R., see Jim, W.-T.
- Chen, Q., see Shi, H.
- Chen, S., see Bekeredjian, R.
- Chen, S.-T., see Chen, W.-M.
- Chen, W.-M., Chang, R.-F., Kuo, S.-J., Chang, C.-S., Moon, W. K., Chen, S.-T. and Chen, D.-R.: 3-D ultrasound texture classification using run difference matrix, 763
- Chen, Y.-Z., see Yang, R.-S.
- Cheng, J.-Z., see Chen, C.-M.
- Cheng, S., see Muller, M.
- Cheng, Y.-C., see Liu, I.-F.
- Cheung, A. M. Y., Brown, A. S., Hastie, L. A., Cucevic, V., Roy, M., Lacefield, J. C., Fenster, A. and Foster, F. S.: three-dimensional ultrasound biomicroscopy for xenograft growth analysis, 865 (Clinical Note)
- Chikui, T., Tokumori, K., Yoshiura, K., Oobu, K., Nakamura, S. and Nakamura, K.: sonographic texture characterization of salivary gland tumors by fractal analyses, 1297
- Chin, C. T., see Eckersley, R. J.
- Chiu, N.-C., see Jim, W.-T.
- Chivers, R. A., see Hill, G. E.
- Cho, H. S., see Park, S. R.
- Choi, M. J., see Park, S. R.

chondrocytes

transforming growth factor- β_1 mediates the effects of low-intensity pulsed ultrasound in chondrocytes (Mukai), 1713

Chou, Y.-H., see Chen, C.-M.

Chou, Y.-H., see Wu, C.-Y.

Chung, C. S., see Riordan, M. M.

Chung, E., Fan, L., Degg, C. and Evans, D. H.: detection of Doppler embolic signals: psychoacoustic considerations, 1177

Chung, S. I., see Park, S. R.

Ciriello, E., see Vergani, P.

Clement, G. T., see Aarnio, J.

Cleveland, R. O., see Bailey, M. R.

Cloutier, G., see Maurice, R. L.

coagulation

detection of blood coagulation and clot formation using quantitative ultrasonic parameters (Huang), 1567

Coakley, W. T., see Bazou, D.

Coakley, W. T., see Gherardini, L.

Cobbold, R. S. C., see Steinman, A. H.

Coleman, D. P., Rakebrandt, F., Pugh, N. D., Crawford, D. C. and Woodcock, J. P.: development and validation of an *in vivo* analysis tool to identify changes in carotid plaque tissue types in serial 3-D ultrasound scans, 329

Collins, D. L., see Mercier, L.

Collins, D., see Cook, R. B.

Collins, L. D., see Mercier, L.

compounding

improvements in elastographic contrast-to-noise ratio using spatial-angular compounding (Techavipoo), 529

investigation of the effect of subcutaneous fat on image quality performance of 2D conventional imaging and tissue harmonic imaging (Browne), 957

temporal calibration of freehand three-dimensional ultrasound using image alignment (Gooding), 919

Connors, B. A., see Bailey, M. R.

contrast

absolute measurement of ultrasonic backscatter from single microbubbles (Sboros), 1063

advantages in using multifrequency excitation of contrast microbubbles for enhancing echo particle image velocimetry techniques: initial numerical studies using rectangular and triangular waves (Zheng), 99

an ultrasonic microbubble semi-intermodulated imaging technique (Wu), 1199

augmentation of cardiac protein delivery using ultrasound targeted microbubble destruction (Bekeredjian), 687

comparison of different mathematical models to analyze diminution kinetics

- of ultrasound contrast enhancement in a flow phantom (Meyer-Wiethe), 93
- contrast media induces hypoperfusion in kidneys with ureteral stone: Doppler US study (Unal), 31
- delivery of oligodeoxynucleotides into human saphenous veins and the adjunct effect of ultrasound and microbubbles (Kodama), 1683
- effectiveness of lipid microbubbles and ultrasound in declotting thrombosis (Xie), 979
- erythrocytes, as well as microbubble contrast agents, are important factors in improving thermal and therapeutic effects of high-intensity focused ultrasound (Takegami), 385
- grey-scale contrast enhancement in rabbit liver with Sonovue™ at different doses (Li), 185
- high-speed optical observations of contrast agent destruction (Bouakaz), 391
- improvements in elastographic contrast-to-noise ratio using spatial-angular compounding (Techavipoo), 529
- insonation facilitates plasmid DNA transfection into the central nervous system and microbubbles enhance the effect (Manome), 693
- laser Doppler anemometry measurements of the shear stresses on ultrasonic contrast agent microbubbles attached to agar (Butler), 545
- modeling ultrasound contrast measurement of blood flow and perfusion in biological tissue (Thijssen), 279
- MRI-guided targeted blood-brain barrier disruption with focused ultrasound: histological findings in rabbits (McDannold), 1527
- on the relationship between encapsulated ultrasound contrast agent and pressure (Adam), 673
- on the suitability of broadband attenuation measurement for characterizing contrast microbubbles (Chatterjee), 781
- optimising phase and amplitude modulation schemes for imaging microbubble contrast agents at low acoustic power (Eckersley), 213
- preparation, characterization and *in vivo* observation of phospholipid-based gas-filled micro-bubbles containing Hirudin (Zhao), 1237
- pressure-dependent attenuation with microbubbles at low mechanical index (Tang), 377
- property and contrast-enhancement effects of lipid ultrasound contrast agent: a preliminary experimental study (Zhao), 537
- semiquantitative analysis of ultrasonic cerebral perfusion imaging (Krogias), 1007
- sonic activation of molecularly-targeted nanoparticles accelerates transmembrane lipid delivery to cancer cells through contact-mediated mechanisms: implications for enhanced local drug delivery (Crowder), 1693
- targeting vascular endothelium with Avidin microbubbles (Korpanty), 1279 (Technical Note)
- the effect of size on the acoustic response of polymer-shelled contrast agents (Bloch), 439 (Technical Note)
- the influence of agent delivery mode on cardiomyocyte injury induced by myocardial contrast echocardiography in rats (Miller), 1257
- time and pressure dependence of acoustic signals radiated from microbubbles (Ganor), 1367
- transcranial ultrasound angiography (tUSA): a new approach for contrast specific imaging of intracranial arteries (Hölscher), 1001
- ultrasound-microbubble-induced neovascularization in mouse skeletal muscle (Chappell), 1411

vascular effects induced by combined 1-MHz ultrasound and microbubble contrast agent treatments *in vivo* (Hwang), 553

Conza, N. E., see Vlaanderen, E.

Cook, R. B., Collins, D., Tucker, J. and Zioupos, P.: the ability of peripheral quantitative ultrasound to identify patients with low bone mineral density in the hip or spine, 625

Cook, T., see Kodama, T.

Cooperberg, P., see Archip, N.

coronary

in vivo volumetric analysis of coronary stent using optical coherence tomography with a novel balloon occlusion-flushing catheter: a comparison with intravascular ultrasound (Kawase), 1343

correlation

3-D measurement of body tissues based on ultrasound images with 3-D spatial information (Huang), 1607

association of automated and human observer lesion detecting ability using phantoms (Kofler), 351

correlation of ultrasonographic findings to Tossy's and Rockwood's classification of acromioclavicular joint injuries (Heers), 725

Doppler waveforms: the relation between ductus venosus and inferior vena cava (Zhang), 1173

multiplanar transcranial ultrasound imaging: standards, landmarks and correlation with magnetic resonance imaging (Kern), 311

physiological range of mechanical synchronicity of the human heart: comparison between different echocardiographic assessment modalities (Poerner), 1163

texture analysis in digitally-acquired echocardiographic images: the effect of Jpeg compression and video storage (Aschkenasy), 361

Cousins, C. M., see Gherardini, L.

Cowe, J., Gittins, J., Naylor, A. R. and Evans, D. H.: RF signals provide additional information on embolic events recorded during TCD monitoring, 613

cranial ultrasound

a new ultrasound method for determining the acoustic phase shifts caused by the skull bone (Aarnio), 771

a tissue-specific adaptive texture filter for medical ultrasound images (Stippel), 1211

acceleration time in the fetal middle cerebral artery during the second half of pregnancy (Da Costa), 317

3-D ultrasonographic imaging of the cerebral ventricular system in very low birth weight infants (Haiden), 7

cerebral blood flow volume measurements with ultrasound: interobserver reproducibility in pre-term and term neonates (Ehehalt), 191

cerebral hemodynamic change and intraventricular hemorrhage in very low birth weight infants with patent ductus arteriosus (Jim), 197

computer analysis of three-dimensional power angiography images of foetal cerebral, lung and placental circulation in normal and high-risk pregnancy (Dubiel), 321

- detection of Doppler embolic signals: psychoacoustic considerations (Chung), 1177
- limits of uncertainty in measured values of embolus-to-blood ratios in dual-frequency TCD recordings due to nonidentical sample volume shapes (Evans), 233
- multiplanar transcranial ultrasound imaging: standards, landmarks and correlation with magnetic resonance imaging (Kern), 311
- prenatal diagnosis of fetal acrania using three-dimensional ultrasound (Liu), 175
- RF signals provide additional information on embolic events recorded during TCD monitoring (Cowe), 613
- semiquantitative analysis of ultrasonic cerebral perfusion imaging (Krogias), 1007
- transcranial ultrasound angiography (tUSA): a new approach for contrast specific imaging of intracranial arteries (Hölscher), 1001
- Crawford, D. C., see Coleman, D. P.
- Creemers, J.: atlas of ultrasound in obstetrics and gynecology, 445
- Crowder, K. C., Hughes, M. S., Marsh, J. N., Barbieri, A. M., Fuhrhop, R. W., Lanza, G. M. and Wickline, S. A.: sonic activation of molecularly-targeted nanoparticles accelerates transmembrane lipid delivery to cancer cells through contact-mediated mechanisms: implications for enhanced local drug delivery, 1693
- Crum, L. A., see Bailey, M. R.
- Crum, L. A., see Hwang, J. H.
- Crum, L. A., see Lafon, C.
- Cucevic, V., Brown, A. S. and Foster, F. S.: thermal assessment of 40-MHz pulsed Doppler ultrasound in human eye, 565
- Cucevic, V., see Cheung, A. M. Y.
- Cui, J. H., see Park, S. R.
- Cui, J., see Pan, H.
- Culp, W. C., see Xie, F.
- Cunningham, C., see Butler, M. B.
- Curiel, L., Souchon, R., Rouvière, O., Gelet, A. and Chapelon, J. Y.: elastography for the follow-up of high-intensity focused ultrasound prostate cancer treatment: initial comparison with MRI, 1461
- Curran, J. M., see Hayton, M. J.
- Czarnota, G. J., see Tunis, A. S.

D

- Da Costa, A. G., Filho, F. M., Spara, P., De Freitas, P. and Arévalo, J.: acceleration time in the fetal middle cerebral artery during the second half of pregnancy, 317
- Da Costa, A. G., Filho, F. M., Spara, P., Gadelha, E. B. and Netto, P. V. S.: fetal hemodynamics evaluated by Doppler velocimetry in the second half of pregnancy, 1023
- Dandekar, S., Li, Y., Molloy, J. and Hossack, J.: a phantom with reduced complexity for spatial 3-D ultrasound calibration, 1083

- Daniel, W. G., see Schäfer, S.
 De Biasio, P., see Vignolo, M.
 De Freitas, P., see Da Costa, A. G.
 de Jong, N., see Bouakaz, A.
 de Jong, N., see Vlaanderen, E.
 de Korte, C. L., see Thijssen, J. M.
 Degg, C., see Chung, E.
 Delouche, A., see Diebold, B.
 Deng, C. X., see Pan, H.
 Devcic-Kuhar, B., see Gherardini, L.
 Di Salvo, G., Russo, M. G., Paladini, D., Pacileo, G., Felicetti, M., Ricci, C., Cardaropoli, D., Palma, M., Caso, P. and Calabro, R.: quantification of regional left and right ventricular longitudinal function in 75 normal fetuses using ultrasound-based strain rate and strain imaging, 1159

diabetes

- diabetes and diastolic function: stiffness and relaxation from transmitral flow (Riordan), 1589

diastolic function

- diabetes and diastolic function: stiffness and relaxation from transmitral flow (Riordan), 1589
 optimisation of factor analysis of the left ventricle in echocardiography for detecting wall motion abnormalities (Diebold), 1597
 Diebold, B., Delouche, A., Abergel, E., Raffoul, H., Diebold, H. and Frouin, F.: optimisation of factor analysis of the left ventricle in echocardiography for detecting wall motion abnormalities, 1597
 Diebold, G. J., see Gusev, V. E.
 Diebold, H., see Diebold, B.
 Diehl, P., see Gerdesmeyer, L.
 Dillon, J. P., see Hayton, M. J.
 Dimitropoulos, N., see Tsantis, S.
 Ding, C., Rao, L., Nagueh, S. F. and Khoury, D. S.: dynamic three-dimensional visualization of the left ventricle by intracardiac echocardiography, 15

- Dodds, J., see Lee, S.

- Dong, B., see Li, J.

- Donma, M. M., Donma, O. and Sonmez, S.: prediction of birth weight by ultrasound in Turkish population. Which formula should be used in Turkey to estimate fetal weight? 1577,

- Donma, O., see Donma, M. M.

Doppler

- acceleration time in the fetal middle cerebral artery during the second half of pregnancy (Da Costa), 317
 advantages in using multifrequency excitation of contrast microbubbles for

- enhancing echo particle image velocimetry techniques: initial numerical studies using rectangular and triangular waves (Zheng), 99
- cerebral blood flow volume measurements with ultrasound: interobserver reproducibility in pre-term and term neonates (Ehehalt), 191
- cerebral hemodynamic change and intraventricular hemorrhage in very low birth weight infants with patent ductus arteriosus (Jim), 197
- clinical validation of common carotid artery wall distension assessment based on multigate Doppler processing (Morganti), 937
- computer analysis of three-dimensional power angiography images of foetal cerebral, lung and placental circulation in normal and high-risk pregnancy (Dubiel), 321
- contrast media induces hypoperfusion in kidneys with ureteral stone: Doppler US study (Unal), 31
- curvature affects Doppler investigation of vessels: implications for clinical practice (Balbis), 65
- detection of Doppler embolic signals: psychoacoustic considerations (Chung), 1177
- display of spatially-registered Doppler spectral waveforms and three-dimensional vein graft geometry (Leotta), 1317
- Doppler sonography in assessing disease activity in rheumatoid arthritis (Varsamidis), 739
- Doppler waveforms: the relation between ductus venosus and inferior vena cava (Zhang), 1173
- effect of vessel curvature on Doppler derived velocity profiles and fluid flow (Krams), 663
- effects of beam steering in pulsed-wave ultrasound velocity estimation (Steinman), 1073
- evaluation of cardiac function by tissue Doppler echocardiography: hemodynamic determinants and clinical application (Yu), 23
- fetal hemodynamics evaluated by Doppler velocimetry in the second half of pregnancy (Da Costa), 1023
- laser Doppler anemometry measurements of the shear stresses on ultrasonic contrast agent microbubbles attached to agar (Butler), 545
- limits of uncertainty in measured values of embolus-to-blood ratios in dual-frequency TCD recordings due to nonidentical sample volume shapes (Evans), 233
- measurement of anastomosis geometry in lower extremity bypass grafts with 3-D ultrasound imaging (Leotta), 1305
- modeling ultrasound contrast measurement of blood flow and perfusion in biological tissue (Thijssen), 279
- normal reference intervals and ranges of side-to-side and day-to-day variability of ocular blood flow Doppler parameters (Ustymowicz), 895
- physiological range of mechanical synchronicity of the human heart: comparison between different echocardiographic assessment modalities (Poerner), 1163
- real-time numerical simulation of Doppler ultrasound in the presence of nonaxial flow (Khoshniat), 519
- real-time software processing and audio reproduction of directional Doppler signals (Fidanzati), 1735 (Technical Note)
- RF signals provide additional information on embolic events recorded during TCD monitoring (Cowe), 613
- semiquantitative analysis of ultrasonic cerebral perfusion imaging (Krogias), 1007

transcranial ultrasound angiography (tUSA): a new approach for contrast specific imaging of intracranial arteries (Hölscher), 1001
wall shear stress and related hemodynamic parameters in the fetal descending aorta derived from colour Doppler velocity profiles (Struijk), 1441

drug delivery

augmentation of cardiac protein delivery using ultrasound targeted micro-bubble destruction (Bekeredjian), 687
insonation facilitates plasmid DNA transfection into the central nervous system and microbubbles enhance the effect (Manome), 693
MRI-guided targeted blood-brain barrier disruption with focused ultrasound: histological findings in rabbits (McDannold), 1527
MRI-guided ultrasonic heating allows spatial control of exogenous luciferase in canine prostate (Silcox), 965
preparation, characterization and *in vivo* observation of phospholipid-based gas-filled micro-bubbles containing Hirudin (Zhao), 1237
sonic activation of molecularly-targeted nanoparticles accelerates transmembrane lipid delivery to cancer cells through contact-mediated mechanisms: implications for enhanced local drug delivery (Crowder), 1693
study of sonoporation dynamics affected by ultrasound duty cycle (Pan), 849
targeting vascular endothelium with Avidin microbubbles (Korpanty), 1279 (Technical Note)
the effect of sonication on simulated osteoarthritis. Part 1: effects of 1 MHz ultrasound on uptake of hyaluronan into the rabbit synovium (Park), 1551
the effect of sonication on simulated osteoarthritis. Part 11: alleviation of osteoarthritis pathogenesis by 1 MHz ultrasound with simultaneous hyaluronate injection (Park), 1559

Dou, C., see Miller, D. L.

Doyley, M. M., Srinivasan, S., Pendergrass, S. A., Wu, Z. and Ophir, J.: comparative evaluation of strain-based and model-based modulus elastography, 787

Drudi, F. M., see Giovagnorio, F.

Dual, J., see Haake, A.

Dubiel, M., Breborowicz, G. H., Ropacka, M., Pietryga, M., Maulik, D. and Gudmundsson, S.: computer analysis of three-dimensional power angiography images of foetal cerebral, lung and placental circulation in normal and high-risk pregnancy, 321

Duck, F. A., see Shipley, J. A.

Duck, F. A., see Verma, P. K.

ductus arteriosus

cerebral hemodynamic change and intraventricular hemorrhage in very low birth weight infants with patent ductus arteriosus (Jim), 197

ductus venosus

Doppler waveforms: the relation between ductus venosus and inferior vena cava (Zhang), 1173

DVT

correspondence of ultrasound elasticity imaging to direct mechanical measurement in aging DVT in rats (Xie), 1351

DXA

comparison of phalangeal ultrasound and dual energy X-ray absorptiometry in healthy male and female adolescents (Halaba), 1617

E

Easson, W. J., see Butler, M. B.

echocardiography

adaptive brightness transfer functions in echocardiography (Zwirn), 649

anisotropy of apparent backscatter in the short-axis view of mouse hearts (Holland), 1623

diabetes and diastolic function: stiffness and relaxation from transmitral flow (Riordan), 1589

Doppler echocardiography flow-velocity image analysis for patients with atrial fibrillation (Greenspan), 1031

dynamic three-dimensional visualization of the left ventricle by intracardiac echocardiography (Ding), 15

estimating myocardial attenuation from M-mode ultrasonic backscatter (Baldwin), 477

evaluation of cardiac function by tissue Doppler echocardiography: hemodynamic determinants and clinical application (Yu), 23

fetal arrhythmias: natural history and management (Vergani), 1

hypoechoic areas on ultrasound images of atheroma are not always diagnostic of fatty plaque (Tabel), 1013

left ventricular wall motion analysis using real-time three-dimensional ultrasound (Kuo), 203

optimisation of factor analysis of the left ventricle in echocardiography for detecting wall motion abnormalities (Diebold), 1597

physiological range of mechanical synchronicity of the human heart: comparison between different echocardiographic assessment modalities (Poerner), 1163

quantification of regional left and right ventricular longitudinal function in 75 normal fetuses using ultrasound-based strain rate and strain imaging (Di Salvo), 1159

segmentation of real-time three-dimensional ultrasound for quantification of ventricular function: a clinical study on right and left ventricles (Angelini), 1143

texture analysis in digitally-acquired echocardiographic images: the effect of Jpeg compression and video storage (Aschkenasy), 361

the influence of agent delivery mode on cardiomyocyte injury induced by myocardial contrast echocardiography in rats (Miller), 1257

Eckersley, R. J., Chin, C. T. and Burns, P. N.: optimising phase and amplitude modulation schemes for imaging microbubble contrast agents at low acoustic power, 213

Eckersley, R. J., see Tang, M.-X.

Eehalt, S., Kehrler, M., Goelz, R., Poets, C. and Schöning, M.: cerebral blood flow volume measurements with ultrasound: interobserver reproducibility in pre-term and term neonates, 191

elastography

a general solution for catheter position effects for strain estimation in intravascular elastography (Shi), 1509

a method for generating permeability elastograms and Poisson's ratio time-constant elastograms (Righetti), 803

acoustic radiation force impulse imaging of the abdomen: demonstration of feasibility and utility (Fahey), 1185

bone microstructure and elastic tissue properties are reflected in QUS axial transmission measurements (Raum), 1225

comparative evaluation of strain-based and model-based modulus elastography (Doyley), 787

correspondence of ultrasound elasticity imaging to direct mechanical measurement in aging DVT in rats (Xie), 1351

determination of the elasticity coefficient for a single trabecula of a cancellous bone: scanning acoustic microscopy approach (Litniewski), 1361

elastography for the follow-up of high-intensity focused ultrasound prostate cancer treatment: initial comparison with MRI (Curiel), 1461

improvements in elastographic contrast-to-noise ratio using spatial-angular compounding (Techavipoo), 529

in vivo elastographic investigation of ethanol-induced hepatic lesions (Hoyt), 607

investigation of parametric spectral estimation techniques for elasticity imaging (Hoyt), 1109

on the potential of the Lagrangian speckle model estimator to characterize atherosclerotic plaques in endovascular elastography: *in vitro* experiments using an excised human carotid artery (Maurice), 85

monitoring the formation of thermal lesions with heat-induced echo-strain imaging: a feasibility study (Souchon), 251

monitoring stiffness changes in lesions after radiofrequency ablation at different temperatures and durations of ablation (Bharat), 415

robustness of reconstructing the Young's modulus distribution of vulnerable atherosclerotic plaques using a parametric plaque model (Baldewsing),

strain processing of intraoperative ultrasound images of brain tumours: initial results (Selbekk), 45

Elden, H., see Nacitarhan, V.

Ellingsen, I., see Andreassen, A. H.

Elliott, A. T., see Browne J. E.

emboli

detection of Doppler embolic signals: psychoacoustic considerations (Chung), 1177

limits of uncertainty in measured values of embolus-to-blood ratios in dual-frequency TCD recordings due to nonidentical sample volume shapes (Evans), 233

RF signals provide additional information on embolic events recorded during TCD monitoring (Cowe), 613

Emelianov, S. Y., see Xie, H.

empirical mode decomposition

empirical mode decomposition and tissue harmonic imaging (Bennett), 1051

endobronchial

3-D endobronchial ultrasonography – a *post mortem* study (Andreassen), 473

endoluminal ultrasound

3-D endobronchial ultrasonography – a *post mortem* study (Andreassen), 473

identification of the layers of the bladder wall on high-frequency endoluminal ultrasonography by a needle puncture experiment (Horiuchi), 307

Ermert, H., see Scheipers, U.

errors

3-D measurement of body tissues based on ultrasound images with 3-D spatial information (Huang), 1607

a mechanical instrument for 3D ultrasound probe calibration (Gee), 505

a needle tracking device for ultrasound guided percutaneous procedures (Chan), 1469

a phantom with reduced complexity for spatial 3-D ultrasound calibration (Dandekar), 1083

a review of calibration techniques for freehand 3-D ultrasound systems (Mercier), 143

a review of calibration techniques for freehand 3-D ultrasound systems (Mercier), 449 (Review) – correct version

association of automated and human observer lesion detecting ability using phantoms (Kofler), 351

cerebral blood flow volume measurements with ultrasound: interobserver reproducibility in pre-term and term neonates (Ehehalt), 191

comparison of calibration methods for spatial tracking of a 3-D ultrasound probe (Poon), 1095

comparison of extended field of view and dual imaging ultrasound techniques: accuracy and reliability of distance measurements in phantom study (Ying), 79

curvature affects Doppler investigation of vessels: implications for clinical practice (Balbis), 65

effect of vessel curvature on Doppler derived velocity profiles and fluid flow (Krams), 663

effects of beam steering in pulsed-wave ultrasound velocity estimation (Steinman), 1073

fetal upper arm volume in predicting intrauterine growth restriction: a three-dimensional ultrasound study (Chang), 1435

investigation of the effect of subcutaneous fat on image quality performance of 2D conventional imaging and tissue harmonic imaging (Browne), 957

likelihood of malignancy in breast lesions characterised by ultrasound with a combined diagnostic score (Baez), 179

limits of uncertainty in measured values of embolus-to-blood ratios in dual-frequency TCD recordings due to nonidentical sample volume shapes (Evans), 233

prediction of birth weight by ultrasound in Turkish population. Which formula should be used in Turkey to estimate fetal weight? (Donma), 1577

RF and amplitude-based probe pressure correction for 3D ultrasound (Treece), 493

RF signals provide additional information on embolic events recorded during TCD monitoring (Cowe), 613

segmentation of fetal ultrasound images (Jardin), 243

temporal calibration of freehand three-dimensional ultrasound using image alignment (Gooding), 919

the efficacy assessment of thigh volume in predicting intrauterine fetal growth restriction by three-dimensional ultrasound (Chang), 883

erythrocytes

- effect of ultrasound on nucleated erythrocytes (Milowska), 129
 erythrocytes, as well as microbubble contrast agents, are important factors in improving thermal and therapeutic effects of high-intensity focused ultrasound (Takegami), 385

ESWT

- antibacterial effects of extracorporeal shock waves (Gerdesmeyer), 115
 cavitation cluster dynamics in shock-wave lithotripsy: Part 1. free field (Arora), 827
 cavitation detection during shock-wave lithotripsy (Bailey), 1245

Evan, A. P., see Bailey, M. R.

Evans, D. H. and Gittins, J.: limits of uncertainty in measured values of embolus-to-blood ratios in dual-frequency Tcd recordings due to non-identical sample volume shapes, 233

Evans, D. H., see Chung, E.

Evans, D. H., see Cowe, J.

extended field of view

- comparison of extended field of view and dual imaging ultrasound techniques: accuracy and reliability of distance measurements in phantom study (Ying), 79

Eyding, J., see Krogias, C.

eye

- normal reference intervals and ranges of side-to-side and day-to-day variability of ocular blood flow Doppler parameters (Ustymowicz), 895

F

Fahey, B. J., Nightingale, K. R., Nelson, R. C., Palmeri, M. L. and Trahey, G. E.: acoustic radiation force impulse imaging of the abdomen: demonstration of feasibility and utility, 1185

Faidi, W., see Makin, I. R. S.

Fan, L., see Chung, E.

Fanelli, G., see Giovagnorio, F.

fat

fatty changes as a misleading factor in the evaluation with ultrasound of superficial lymph nodes (Giovagnorio), 1017

hypoechoic areas on ultrasound images of atheroma are not always diagnostic of fatty plaque (Tabel), 1013

investigation of the effect of subcutaneous fat on image quality performance of 2D conventional imaging and tissue harmonic imaging (Browne), 957

Feinberg, M. S., see Greenspan, H.

Feldman, M. D., see Wood, A. K. W.

Feleppa, E. J. and Ketterling, J. A.: in memoriam: Frederic Louis Lizzi, Eng.Sc.D., 1942-2005, 881

Felicetti, M., see Di Salvo, G.

Fenster, A., see Cheung, A. M. Y.

Fenster, A., see Landry, A.
Fenster, A., see Nadkarni, S. K.
Fenwick, S., see Hill, G. E.
Fernando, K. L., see Struijk, P. C.
Ferrara, K. W., see Bloch, S. H.

fetal therapy

fetal arrhythmias: natural history and management (Vergani), 1

fetus

acceleration time in the fetal middle cerebral artery during the second half of pregnancy (Da Costa), 317
automated fetal head detection and measurement in ultrasound images by iterative randomised Hough transform (Lu), 929
fetal arrhythmias: natural history and management (Vergani), 1
fetal hemodynamics evaluated by Doppler velocimetry in the second half of pregnancy (Da Costa), 1023
fetal spine ossification: the gender and individual differences illustrated by ultrasonography (Vignolo), 733
fetal upper arm volume in predicting intrauterine growth restriction: a three-dimensional ultrasound study (Chang), 1435
computer analysis of three-dimensional power angiography images of foetal cerebral, lung and placental circulation in normal and high-risk pregnancy (Dubiel), 321
prediction of birth weight by ultrasound in Turkish population. Which formula should be used in Turkey to estimate fetal weight? (Donma), 1577
prenatal diagnosis of fetal acrania using three-dimensional ultrasound (Liu), 175
quantification of regional left and right ventricular longitudinal function in 75 normal fetuses using ultrasound-based strain rate and strain imaging (Di Salvo), 1159
segmentation of fetal ultrasound images (Jardin), 243
the efficacy assessment of thigh volume in predicting intrauterine fetal growth restriction by three-dimensional ultrasound (Chang), 883
wall shear stress and related hemodynamic parameters in the fetal descending aorta derived from colour Doppler velocity profiles (Struijk), 1441
Fidanzati, P., Morganti, T. and Tortoli, P.: real-time software processing and audio reproduction of directional Doppler signals, 1735 (Technical Note)
Figueiredo, M. A. T., see Jardin, S. M. G. V. B.
Filho, F. M., see Da Costa, A. G.
Finet, G., see Maurice, R. L.
Flachskampf, F. A., see Schäfer, S.
Flecca, D., see Giovagnorio, F.
Flores, C., see Ammann, J.-J.
Floyd, R., see Lu, W.
Forsberg, F., see Hoyt, K.
Foster, F. S., see Cheung, A. M. Y.
Foster, F. S., see Cucevic, V.
Fowlkes, J. B., see Xu, Z.

- Fox, K. A. A., see Butler, M. B.
Francioso, A., see Giovagnorio, F.
Frijlink, M. E., Goertz, D. E. and van der Steen, A. F. W.: reduction of stent artifacts using high-frequency harmonic ultrasound imaging, 1335
Fritzsche, E., see Regelsberger, J.
Frouin, F., see Diebold, B.
Fu, W.-M., see Yang, R.-S.
Fuhrhop, R. W., see Crowder, K. C.
Fujikura, K., see Otsuka, R.
Furuhata, H., see Manome, Y.

G

- Gabryelak, T., see Milowska, K.
Gadelha, E. B., see Da Costa, A. G.
Galaz, B., see Ammann, J.-J.
Gallagher, J. A., see Hayton, M. J.
Galli, M., see Vergani, P.
Ganor, Y., Adam, D. and Kimmel, E.: time and pressure dependence of acoustic signals radiated from microbubbles, 1367
Gebauer, D., Mayr, E., Orthner, E. and Ryaby, J. P.: low-intensity pulsed ultrasound: effects on nonunions, 1391
Gedanken, A., see Topaz, M.
Gee, A. H., Houghton, N. E., Treece, G. M. and Prager, R. W.: a mechanical instrument for 3D ultrasound probe calibration, 505
Gee, A. H., see Hassenpflug, P.
Gee, A. H., see Treece, G. M.
Geiger, T., see Poerner, T. C.
Gelet, A., see Curiel, L.
George, A. J. T., see Kodama, T.
Gerdesmeyer, L., von Eiff, C., Horn, C., Henne, M., Roessner, M., Diehl, P. and Gollwitzer, H.: antibacterial effects of extracorporeal shock waves, 115
Gherardini, L., Cousins, C. M., Hawkes, J. J., Spengler, J., Radel, S., Lawler, H., Devcic-Kuhar, B., Gröschl, M., Coakley, W. T. and McLoughlin, A. J.: a new immobilisation method to arrange particles in a gel matrix by ultrasound standing waves, 261
Ghidini, A., see Vergani, P.
Giles, A., see Tunis, A. S.
Ginocchio, G., see Vignolo, M.
Giovagnorio, F., Drudi, F. M., Fanelli, G., Flecca, D. and Francioso, A.: fatty changes as a misleading factor in the evaluation with ultrasound of superficial lymph nodes, 1017
Gittins, J., see Cowe, J.

Gittins, J., see Evans, D. H.

glucose

glucose measurement with sensors and ultrasound (Lee), 971

Glüer, C.-C., see Haiat, G.

Glynn, D., see Hayton, M. J.

Goddard, D. A., see Shipley, J. A.

Goebel, B., see Poerner, T. C.

Goelz, R., see Ehehalt, S.

Goertz, D. E., see Frijlink, M. E.

Gollwitzer, H., see Gerdesmeyer, L.

Gomatam, J., see Sboros, V.

Gong, X., see Ma, Q.

Gooding, M. J., Kennedy, S. H. and Noble, J. A.: temporal calibration of freehand three-dimensional ultrasound using image alignment, 919

Gottfried, H.-W., see Wagner, B.

Gottwald, F., see Scheipers, U.

Govaert, P., see Stippel, G.

Gravdal, K., see Andreassen, A. H.

Grayburn, P. A., see Bekeredjian, R.

Grayburn, P. A., see Korpanty, G.

Greenspan, H., Schechner, O., Scheinowitz, M. and Feinberg, M. S.: Doppler echocardiography flow-velocity image analysis for patients with atrial fibrillation, 1031

Gröschl, M., see Gherardini, L.

Gudmundsson, S., see Dubiel, M.

guidance

a needle tracking device for ultrasound guided percutaneous procedures (Chan), 1469

miniaturized ultrasound arrays for interstitial ablation and imaging (Makin), 1539

MRI-guided targeted blood-brain barrier disruption with focused ultrasound: histological findings in rabbits (McDannold), 1527

MRI-guided ultrasonic heating allows spatial control of exogenous luciferase in canine prostate (Silcox), 965

speckle classification for sensorless freehand 3-D ultrasound (Hassenpflug), 1499

Guidi, F., see Krams, R.

Guiot, C., see Balbis, S.

Gusev, V. E. and Diebold, G. J.: imaging with the ultrasonic vibration potential: a theory for current generation, 273

H

Haake, A., Neild, A., Kim, D.-H., Ihm, J.-E., Sun, U., Dual, J. and Ju, B.-K.: manipulation of cells using an ultrasonic pressure field, 857

- Haase, K. K., see Poerner, T. C.
- Hackelöer, B.-J., see Baez, E.
- Haeggström, E. O., see Marentis, T. C.
- Haghi, D., see Poerner, T. C.
- Haïät, G., Padilla, F., Barkmann, R., Kolta, S., Latremouille, C., Glüer, C.-C. and Laugier, P.: *in vitro* speed of sound measurement at intact human femur specimens, 987
- Haiden, N., Klebermass, K., Rücklinger, E., Berger, A., Prusa, A. R., Rohrmeister, K., Wandl-Vergesslich, K. and Kohlhauser-Vollmuth, C.: 3-D ultrasonographic imaging of the cerebral ventricular system in very low birth weight infants, 7
- Hajjar, R. J., see Kawase, Y.
- Halaba, Z. P., Konstantynowicz, J., Pluskiewicz, W., Kaczmarek, M., Piotrowska-Jastrzebska, J.: comparison of phalangeal ultrasound the dual energy X-ray absorptiometry in healthy male and female adolescents, 1617
- Halliwell, M., see Shipley, J. A.
- Halliwell, M., see Zhao, Y.-Z.
- Hansen, E., see Persson, J.
- Hassenpflug, P., Prager, R. W., Treece, G. M. and Gee, A. H.: speckle classification for sensorless freehand 3-D ultrasound, 1499
- Hastie, L. A., see Cheung, A. M. Y.
- Hautmann, R. E., see Wagner, B.
- Hawkes, J. J., see Gherardini, L.
- Hayase, M., see Kawase, Y.
- Hayton, M. J., Dillon, J. P., Glynn, D., Curran, J. M., Gallagher, J. A. and Buckley, K. A.: involvement of Adenosine 5'-Triphosphate in ultrasound-induced fracture repair, 1131
- Hedtmann, A., see Heers, G.
- Heers, G. and Hedtmann, A.: correlation of ultrasonographic findings to Tossy's and Rockwood's classification of acromioclavicular joint injuries, 725
- Hefler, L. A., see Waterman, D. O.
- Helderman, F., see Krams, R.
- Henderson, S. M., see Leotta, D. F.
- Henne, M., see Gerdesmeyer, L.
- Hennerici, M., see Kern, R.
- Hepel, J., see Tabel, G. M.
- Hertzberg, J. R., see Zheng, H.

HIFU

- a new ultrasound method for determining the acoustic phase shifts caused by the skull bone (Aarnio), 771
- cavitation cluster dynamics in shock-wave lithotripsy: Part 1. free field (Arora), 827

- cavitation detection during shock-wave lithotripsy (Bailey), 1245
- elastography for the follow-up of high-intensity focused ultrasound prostate cancer treatment: initial comparison with MRI (Curiel), 1461
- erythrocytes, as well as microbubble contrast agents, are important factors in improving thermal and therapeutic effects of high-intensity focused ultrasound (Takegami), 385
- gel phantom for use in high-intensity focused ultrasound dosimetry (Lafon), 1383
- hyperecho in ultrasound images of HIFU therapy: involvement of cavitation (Rabkin), 947
- in vitro* ablation of cardiac valves using high-intensity focused ultrasound (Otsuka), 109
- modelling of the heat distribution in the intervertebral disk (Persson), 709
- monitoring the formation of thermal lesions with heat-induced echo-strain imaging: a feasibility study (Souchon), 251
- MRI-guided ultrasonic heating allows spatial control of exogenous luciferase in canine prostate (Silcox), 965
- ultrasonic temperature imaging for guiding focused ultrasound surgery: effect of angle between imaging beam and therapy beam (Miller), 401
- Hill, G. E., Fenwick, S., Matthews, B. J., Chivers, R. A. and Southgate, J.: the effect of low-intensity pulsed ultrasound on repair of epithelial cell monolayers *in vitro*, 1701
- Hillman, M. R., see Shipley, J. A.
- Hirata, K., see Otsuka, R.
- Hirji, S., see Khoshniat, M.
- hirudin*
- preparation, characterization and *in vivo* observation of phospholipid-based gas-filled micro-bubbles containing Hirudin (Zhao), 1237
- histotripsy*
- investigation of intensity thresholds for ultrasound tissue erosion (Xu), 1673
- Holdsworth, D. W., see Khoshniat, M.
- Holland, M. R., Kovacs, A., Posdamer, S. H., Wallace, K. D. and Miller, J. G.: anisotropy of apparent backscatter in the short-axis view of mouse hearts, 1623
- Holland, M. R., see Baldwin, S. L.
- Holmes, J. W., see Angelini, E. D.
- Hölscher, T., Wilkening, W. G., Lyden, P. D. and Mattrey, R. F.: transcranial ultrasound angiography (tUSA): a new approach for contrast specific imaging of intracranial arteries, 1001
- Homma, S., see Angelini, E. D.
- Homma, S., see Otsuka, R.
- Horiuchi, K., Shimizu, H., Yoshida, K. and Nishimura, T.: identification of the layers of the bladder wall on high-frequency endoluminal ultrasonography by a needle puncture experiment, 307
- Horn, C., see Gerdesmeyer, L.
- Hoshino, K., see Kawase, Y.
- Hoskins, P. R., see Browne J. E.

- Hossack, J., see Dandekar, S.
- Houghton, N. E., see Gee, A. H.
- Hoyt, K., Forsberg, F. and Ophir, J.: investigation of parametric spectral estimation techniques for elasticity imaging, 1109
- Hoyt, K., Forsberg, F., Merritt, C. R. B., Liu, J.-B. and Ophir, J.: *in vivo* elastographic investigation of ethanol-induced hepatic lesions, 607
- Hsu, C.-H., see Jim, W.-T.
- Huang, C.-C., Wang, S.-H. and Tsui, P.-H.: detection of blood coagulation and clot formation using quantitative ultrasonic parameters, 1567
- Huang, Q. H. and Zheng, Y. P.: a new scanning approach for limb extremities using a water bag in freehand 3-D ultrasound, 575 (Technical Note)
- Huang, Q. H., see Lu, M. H.
- Huang, Q.-H., Zheng, Y.-P., Li, R. and Lu, M.-H.: 3-D measurement of body tissues based on ultrasound images with 3-D spatial information, 1607
- Huang, T.-H., see Yang, R.-S.
- Huang, W.-P., see Yu, W.-C.
- Hughes, M. S., see Crowder, K. C.
- Humphrey, V. F., see Verma, P. K.
- Hung, H.-Y., see Jim, W.-T.
- Hunt, J. W., see Tunis, A. S.
- Hutcheson, K. A., see Kuo, J.
- Hwang, J. H., Brayman, A. A., Reidy, M. A., Matula, T. J., Kimmey, M. B. and Crum, L. A.: vascular effects induced by combined 1-MHz ultrasound and microbubble contrast agent treatments *in vivo*, 553

hyaluronan

- the effect of sonication on simulated osteoarthritis. Part I: effects of 1 MHz ultrasound on uptake of hyaluronan into the rabbit synovium (Park), 1551
- the effect of sonication on simulated osteoarthritis. Part II: alleviation of osteoarthritis pathogenesis by 1 MHz ultrasound with simultaneous hyaluronate injection (Park), 1559

Hynynen, K., see Aarnio, J.

Hynynen, K., see McDannold, N.

Hynynen, K., see Silcox, C. E.

hypertension

- liver echogenicity: relation to systemic blood pressure and other components of the metabolic syndrome (Vehmas), 293

I

Ihm, J.-E., see Haake, A.

image processing

- a tissue-specific adaptive texture filter for medical ultrasound images (Stip-pel), 1211
- adaptive brightness transfer functions in echocardiography (Zwirn), 649

- association of automated and human observer lesion detecting ability using phantoms (Kofler), 351
- automated fetal head detection and measurement in ultrasound images by iterative randomised Hough transform (Lu), 929
- automated quantitative volumetric breast ultrasound data-acquisition system (Shipley), 905
- estimating myocardial attenuation from M-mode ultrasonic backscatter (Baldwin), 477
- computer analysis of three-dimensional power angiography images of foetal cerebral, lung and placental circulation in normal and high-risk pregnancy (Dubiel), 321
- development and validation of an *in vivo* analysis tool to identify changes in carotid plaque tissue types in serial 3-D ultrasound scans (Coleman), 329
- development of a support vector machine-based image analysis system for assessing the thyroid nodule malignancy risk on ultrasound (Tsantis), 1451
- Doppler echocardiography flow-velocity image analysis for patients with atrial fibrillation (Greenspan), 1031
- image-based cardiac gating for three-dimensional intravascular ultrasound imaging (Nadkarni), 53
- imaging with the ultrasonic vibration potential: a theory for current generation (Gusev), 273
- involvement of Adenosine 5'-Triphosphate in ultrasound-induced fracture repair (Hayton), 1131
- likelihood of malignancy in breast lesions characterised by ultrasound with a combined diagnostic score (Baez), 179
- liver echogenicity: relation to systemic blood pressure and other components of the metabolic syndrome (Vehmas), 293
- liver steatosis classification using high-frequency ultrasound (Yeh), 599
- segmentation of fetal ultrasound images (Jardin), 243
- sonographic texture characterization of salivary gland tumors by fractal analyses (Chikui), 1297
- sonohistology for the computerized differentiation of parotid gland tumors (Scheipers), 1287
- temporal calibration of freehand three-dimensional ultrasound using image alignment (Gooding), 919
- texture analysis in digitally-acquired echocardiographic images: the effect of Jpeg compression and video storage (Aschkenasy), 361
- ultrasound image segmentation using spectral clustering (Archip), 1485
- ultrasound morphology of invasive lobular breast cancer is different compared with other types of breast cancer (Waterman), 167
- Immonen-Räihä, P., see Vehmas, T.

in vitro irradiation

- a new immobilisation method to arrange particles in a gel matrix by ultrasound standing waves (Gherardini), 261
- antibacterial effects of extracorporeal shock waves (Gerdesmeyer), 115
- early gene response to low-intensity pulsed ultrasound in rat osteoblastic cells (Sena), 703
- effect of ultrasound on nucleated erythrocytes (Milowska), 129
- in vitro* ablation of cardiac valves using high-intensity focused ultrasound (Otsuka), 109
- influence of ultrasound operating parameters on ultrasound-induced thrombolysis *in vitro* (Schäfer), 841

insonation facilitates plasmid DNA transfection into the central nervous system and microbubbles enhance the effect (Manome), 693
investigation of intensity thresholds for ultrasound tissue erosion (Xu), 1673
manipulation of cells using an ultrasonic pressure field (Haake), 857
microfluidic sonicator for real-time disruption of eukaryotic cells and bacterial spores for DNA analysis (Marentis), 1265
synergistic effect of ultrasound and phthalocyanines on nucleated erythrocytes *in vitro* (Milowska), 1707
the alteration of protein profile of Walker 256 carcinoma cells during the apoptotic process induced by ultrasound (Tian), 121
the effect of low-intensity pulsed ultrasound on repair of epithelial cell monolayers *in vitro* (Hill), 1701
thermal assessment of 40-MHz pulsed Doppler ultrasound in human eye (Cucevic), 565
transforming growth factor- β_1 mediates the effects of low-intensity pulsed ultrasound in chondrocytes (Mukai), 1713

in vivo irradiation

comparative study of the efficacy of the topical application of hydrocortisone, therapeutic ultrasound and phonophoresis on the tissue repair process in rat tendons (Koeke), 345
diclofenac phonophoresis in human volunteers (Rosim), 337
low-intensity pulsed ultrasound: effects on nonunions (Gebauer), 1391
miniaturized ultrasound arrays for interstitial ablation and imaging (Makin), 1539
MRI-guided targeted blood-brain barrier disruption with focused ultrasound: histological findings in rabbits (McDannold), 1527
MRI-guided ultrasonic heating allows spatial control of exogenous luciferase in canine prostate (Silcox), 965
the antivasular action of physiotherapy ultrasound on murine tumors (Wood), 1403
the effect of sonication on simulated osteoarthritis. Part I: effects of 1 MHz ultrasound on uptake of hyaluronan into the rabbit synovium (Park), 1551
the effect of sonication on simulated osteoarthritis. Part II: alleviation of osteoarthritis pathogenesis by 1 MHz ultrasound with simultaneous hyaluronate injection (Park), 1559
the effects of low-intensity ultrasound on growing bone after sciatic neurectomy (Yang), 431
the effects of therapeutic ultrasound on heart rate variability: a placebo controlled trial (Nacitarhan), 643
vascular effects induced by combined 1-MHz ultrasound and microbubble contrast agent treatments *in vivo* (Hwang), 553

infants

3-D ultrasonographic imaging of the cerebral ventricular system in very low birth weight infants (Haiden), 7
a tissue-specific adaptive texture filter for medical ultrasound images (Stippel), 1211
cerebral blood flow volume measurements with ultrasound: interobserver reproducibility in pre-term and term neonates (Ehehalt), 191
cerebral hemodynamic change and intraventricular hemorrhage in very low birth weight infants with patent ductus arteriosus (Jim), 197

intervertebral disk

modelling of the heat distribution in the intervertebral disk (Persson), 709

intracardiac echocardiography

dynamic three-dimensional visualization of the left ventricle by intracardiac echocardiography (Ding), 15

intraoperative

in vivo volumetric analysis of coronary stent using optical coherence tomography with a novel balloon occlusion-flushing catheter: a comparison with intravascular ultrasound (Kawase), 1343

intraoperative sonography of intra- and extramedullary tumors (Regelsberger), 593

strain processing of intraoperative ultrasound images of brain tumours: initial results (Selbekk), 45

intravascular ultrasound IVUS

a general solution for catheter position effects for strain estimation in intravascular elastography (Shi), 1509

image-based cardiac gating for three-dimensional intravascular ultrasound imaging (Nadkarni), 53

reduction of stent artifacts using high-frequency harmonic ultrasound imaging (Frijlink), 1335

robustness of reconstructing the Young's modulus distribution of vulnerable atherosclerotic plaques using a parametric plaque model (Baldewsing), 1631

invasive lobular breast cancer

ultrasound morphology of invasive lobular breast cancer is different compared with other types of breast cancer (Waterman), 167

Iro, G., see Scheipers, U.

Ito, H., see Mukai, S.

IVC

Doppler waveforms: the relation between ductus venosus and inferior vena cava (Zhang), 1173

IVUS

a general solution for catheter position effects for strain estimation in intravascular elastography (Shi), 1509

image-based cardiac gating for three-dimensional intravascular ultrasound imaging (Nadkarni), 53

reduction of stent artifacts using high-frequency harmonic ultrasound imaging (Frijlink), 1335

robustness of reconstructing the Young's modulus distribution of vulnerable atherosclerotic plaques using a parametric plaque model (Baldewsing), 1631

Izadnegahdar, O., see Pan, H.

J

Jain, P., see Chatterjee, D.

Jang, I.-K., see Kawase, Y.

Jang, K. W., see Park, S. R.

Jardin, S. M. G. V. B. and Figueiredo, M. A. T.: segmentation of fetal ultrasound images, 243

Jeng, Y.-M., see Yeh, W.-C.

Jenni, R., see Aschkenasy, S. V.

Jim, W.-T., Chiu, N.-C., Chen, M.-R., Hung, H.-Y., Kao, H.-A., Hsu, C.-H. and Chang, J.-H.: cerebral hemodynamic change and intraventricular hemorrhage in very low birth weight infants with patent ductus arteriosus, 197

Jin, C. Z., see Park, S. R.

Johanning, J., see Xie, F.

Johnston, K. W., see Steinman, A. H.

Jolesz, F. A., see McDannold, N.

Jones, M. G., see Shipley, J. A.

Ju, B.-K., see Haake, A.

Junge, L., see Arora, M.

K

Kaarmann, H., see Schäfer, S.

Kaczkowski, P. J., see Lafon, C.

Kaczmarek, M., see Halaba, Z. P.

Kalatzis, I., see Tsantis, S.

Kaneko, Y., see Takegami, K.

Kanzaki, T., see Zhang, B.

Kao, H.-A., see Jim, W.-T.

Kaptanoglu, E., see Nacitarhan, V.

Kara, S., see Unal, B.

Karagoz, I. and Kartal, M. K.: the effects of residual temperature rise on ultrasound heating, 1665

Karr, L. N., see Leotta, D. F.

Kartal, M. K., see Karagoz, I.

Kaukiainen, A., see Vehmas, T.

Kawase, Y., Hoshino, K., Yoneyama, R., McGregor, J., Hajjar, R. J., Jang, I.-K. and Hayase, M.: *in vivo* volumetric analysis of coronary stent using optical coherence tomography with a novel balloon occlusion-flushing catheter: a comparison with intravascular ultrasound, 1343

Kehrer, M., see Ehehalt, S.

Kelcz, F., see Kofler, Jr., J. M.

Kennedy, S. H., see Gooding, M. J.

Kern, R., Perren, F., Kreisel, S., Szabo, K., Hennerici, M. and Meairs, S.: multiplanar transcranial ultrasound imaging: standards, landmarks and correlation with magnetic resonance imaging, 311

Ketterling, J. A., see Feleppa, E. J.

Khoshniat, M., Thorne, M. L., Poepping, T. L., Hirji, S., Holdsworth, D. W. and Steinman, D. A.: real-time numerical simulation of Doppler ultrasound in the presence of nonaxial flow, 519

Khoury, D. S., see Ding, C.

Khuri-Yakub, B. T., see Marentis, T. C.

kidney

contrast media induces hypoperfusion in kidneys with ureteral stone: Doppler US study (Unal), 31

Kilappa, V., see Muller, M.

Kim, D.-H., see Haake, A.

Kim, H., see Zheng, H.

Kim, K., see Xie, H.

Kim, Y., see Sikdar, S.

Kimmel, E., see Ganor, Y.

Kimmey, M. B., see Hwang, J. H.

King, R., see Silcox, C. E.

Kisa, M., see Nacitarhan, V.

Kiss, M. Z., see Bharat, S.

Klebermass, K., see Haiden, N.

Klibanov, A. L., see Chappell, J. C.

Kliner, S., see Schäfer, S.

Klinghammer, L., see Schäfer, S.

Ko, H.-C., see Chang, C.-H.

Kochanowicz, J., see Ustymowicz, A.

Kodama, T., Tan, P. H., Offiah, I., Partridge, T., Cook, T., George, A. J. T. and Blomley, M. J. K.: delivery of oligodeoxynucleotides into human saphenous veins and the adjunct effect of ultrasound and microbubbles, 1683

Koeke, P. U., Parizotto, N. A., Carrinho, P. M. and Salate, A. C. B.: comparative study of the efficacy of the topical application of hydrocortisone, therapeutic ultrasound and phonophoresis on the tissue repair process in rat tendons, 345

Kofler, Jr., J. M., Lindstrom, M. J., Kelcz, F. and Madsen, E. L.: association of automated and human observer lesion detecting ability using phantoms, 351

Kohlhauser-Vollmuth, C., see Haiden, N.

Kolios, M. C., see Tunis, A. S.

Kolta, S., see Haïat, G.

Konstantynowicz, J., see Halaba, Z. P.

Korpanty, G., Grayburn, P. A., Shohet, R. V. and Brekken, R. A.: targeting vascular endothelium with Avidin microbubbles, 1279 (Technical Note)

Kovacs, A., see Holland, M. R.

Kovacs, S. J., see Riordan, M. M.

Krams, R., Bambi, G., Guidi, F., Helderman, F., van der Steen, A. F. W. and Tortoli, P.: effect of vessel curvature on Doppler derived velocity profiles and fluid flow, 663

Kreisel, S., see Kern, R.

Krejza, J., see Ustymowicz, A.

Krogias, C., Postert, T., Meves, S., Wilkening, W., Przuntek, H. and Eyding, J.: semiquantitative analysis of ultrasonic cerebral perfusion imaging, 1007

Krouskop, T. A., see Righetti, R.

Kuo, J., Atkins, B. Z., Hutcheson, K. A. and von Ramm, O. T.: left ventricular wall motion analysis using real-time three-dimensional ultrasound, 203

Kuo, S.-J., see Chen, W.-M.

Kusler, B., see Marentis, T. C.

Kuznetsova, L. A., see Bazou, D.

L

Lacefield, J. C., see Cheung, A. M. Y.

Lafon, C., see Souchon, R.

Lafon, C., Zderic, V., Noble, M. L., Yuen, J. C., Kaczkowski, P. J., Sapozhnikov, O. A., Chavrier, F., Crum, L. A. and Vaezy, S.: gel phantom for use in high-intensity focused ultrasound dosimetry, 1383

Lagrangian

on the potential of the Lagrangian speckle model estimator to characterize atherosclerotic plaques in endovascular elastography: *in vitro* experiments using an excised human carotid artery (Maurice), 85

Laine, A. F., see Angelini, E. D.

Lam, F., see Chan, C.

Lanças, F. M., see Rosim, G. C.

Landry, A., Spence, J. D. and Fenster, A.: quantification of carotid plaque volume measurements using 3D ultrasound imaging, 751

Langer, N., see Regelsberger, J.

Langø, T., see Mercier, L.

Lanza, G. M., see Crowder, K. C.

laser Doppler anemometry

laser Doppler anemometry measurements of the shear stresses on ultrasonic contrast agent microbubbles attached to agar (Butler), 545

Latre mouille, C., see Haïat, G.

Laugier, P., see Haïat, G.

Laugier, P., see Muller, M.

Laugier, P., see Raum, K.

Lawler, H., see Gherardini, L.

Lee, P.-H., see Yeh, W.-C.

Lee, S., Nayak, V., Dodds, J., Pishko, M. and Smith, N. B.: glucose measurement with sensors and ultrasound, 971

Lee, W. M.-F., see Wood, A. K. W.

Lee, W.-S., see Yu, W.-C.

left ventricle

optimisation of factor analysis of the left ventricle in echocardiography for detecting wall motion abnormalities (Diebold), 1597

Leguerney, I., see Raum, K.

Leotta, D. F., Primozich, J. F., Henderson, S. M., Karr, L. N., Bergelin, R. O., Beach, K. W. and Zierler, R. E.: display of spatially-registered Doppler spectral waveforms and three-dimensional vein graft geometry, 1317

Leotta, D. F., Primozich, J. F., Lowe, C. M., Karr, L. N., Bergelin, R. O., Beach, K. W. and Zierler, R. E.: measurement of anastomosis geometry in lower extremity bypass grafts with 3-D ultrasound imaging, 1305

lesion detection

association of automated and human observer lesion detecting ability using phantoms (Kofler), 351

texture analysis in digitally-acquired echocardiographic images: the effect of Jpeg compression and video storage (Aschkenasy), 361

Level, R. M., see Sena, K.

Li, C., see Li, J.

Li, C.-H., see Yeh, W.-C.

Li, J., Dong, B., Yu, X., Wang, X. and Li, C.: grey-scale contrast enhancement in rabbit liver with Sonovue™ at different doses, 185

Li, P.-C., see Yeh, W.-C.

Li, R., see Huang, Q.-H.

Li, Y., see Dandekar, S.

Liang, H.-D., see Zhao, Y.-Z.

Lidgren, L., see Persson, J.

Lin, W.-L., see Yang, R.-S.

Lin, Y.-P., see Yu, W.-C.

Lindseth, F., see Mercier, L.

Lindstrom, M. J., see Kofler, Jr., J. M.

Liste, F., see Alvarez-Clau. A.

lithotripsy

antibacterial effects of extracorporeal shock waves (Gerdesmeyer), 115

cavitation cluster dynamics in shock-wave lithotripsy: Part 1. free field (Arora), 827

cavitation detection during shock-wave lithotripsy (Bailey), 1245

Litniewski, J.: determination of the elasticity coefficient for a single trabecula of a cancellous bone: scanning acoustic microscopy approach, 1361

Liu, I.-F., Chang, C.-H., Yu, C.-H., Cheng, Y.-C. and Chang, F.-M.: prenatal diagnosis of fetal acrania using three-dimensional ultrasound, 175

Liu, J.-B., see Hoyt, K.

Liu, S., see Marentis, T. C.

Liu, W., see Bharat, S.

liver

grey-scale contrast enhancement in rabbit liver with Sonovue™ at different doses (Li), 185

in vivo elastographic investigation of ethanol-induced hepatic lesions (Hoyt), 607

liver echogenicity: relation to systemic blood pressure and other components of the metabolic syndrome (Vehmas), 293

liver steatosis classification using high-frequency ultrasound (Yeh), 599

preparation, characterization and *in vivo* observation of phospholipid-based gas-filled micro-bubbles containing Hirudin (Zhao), 1237

ultrasonic temperature imaging for guiding focused ultrasound surgery: effect of angle between imaging beam and therapy beam (Miller), 401

Lizzi, F. L., see Otsuka, R.

Locatelli, A., see Vergani, P.

Lof, J., see Xie, F.

Lohman, M., see Vehmas, T.

Loupas, T., see Struijk, P. C.

low back pain

low back pain, the stiffness of the sacroiliac joint: a new method using ultrasound (Vlaanderen), 39

Lowe, C. M., see Leotta, D. F.

Lu, B.-Y., see Yang, R.-S.

Lu, M. H., Zheng, Y. P. and Huang, Q. H.: a novel noncontact ultrasound indentation system for measurement of tissue material properties using water jet compression, 817

Lu, M.-H., see Huang, Q.-H.

Lu, M.-Z., see Tian, Z.-M.

Lu, W., Tan, J. and Floyd, R.: automated fetal head detection and measurement in ultrasound images by iterative randomised Hough transform, 929

Lucic, I., see Schäfer, S.

Ludomirsky, A., see Xu, Z.

Luo, Y.-K., see Zhao, Y.-Z.

Luoma, K., see Vehmas, T.

Lyden, P. D., see Hölscher, T.

lymph nodes

fatty changes as a misleading factor in the evaluation with ultrasound of superficial lymph nodes (Giovagnorio), 1017

Lypacewicz, G., see Milowska, K.

Lyson, T., see Ustymowicz, A.

M

Ma, Q., Ma, Y., Gong, X. and Zhang, D.: improvement of tissue harmonic imaging using the pulse-inversion technique, 889

Ma, Y., see Ma, Q.

- MacDonald, C. A., see Sboros, V.
- Maciejko, E., see Souchon, R.
- Madjar, H., see Baez, E.
- Madsen, E. L., see Kofler, Jr., J. M.
- Makin, I. R. S., Mast, D., Faidi, W., Runk, M. M., Barthe, P. G. and Slayton, M. H.: miniaturized ultrasound arrays for interstitial ablation and imaging, 1539
- Manome, Y., Nakayama, N., Nakayama, K. and Furuhashi, H.: insonation facilitates plasmid DNA transfection into the central nervous system and microbubbles enhance the effect, 693
- Marboe, C., see Otsuka, R.
- Marentis, T. C., Kusler, B., Yaralioglu, G. G., Liu, S., Haeggström, E. O. and Khuri-Yakub, B. T.: microfluidic sonicator for real-time disruption of eukaryotic cells and bacterial spores for DNA analysis, 1265
- Mariak, Z., see Ustymowicz, A.
- Mariani, E., see Vergani, P.
- Marsh, J. N., see Crowder, K. C.
- Martin-McNulty, B., Vincelette, J., Vergona, R., Sullivan, M. E. and Wang, Y.-X.: non-invasive measurement of abdominal aortic aneurysms in intact mice by a high-frequency ultrasound imaging system, 745
- Marutyan, K. R., see Baldwin, S. L.
- Maruyama, T., see Takegami, K.
- Mast, D., see Makin, I. R. S.
- Mastik, F., see Baldewsing, R. A.
- Mathews, V. J., see Struijk, P. C.
- Matsumoto, Y., see Takegami, K.
- Matsunaga, T., see Xie, F.
- Matthews, B. J., see Hill, G. E.
- Mattrey, R. F., see Hölscher, T.
- Matula, T. J., see Hwang, J. H.
- Maulik, D., see Dubiel, M.
- Maurice, R. L., Brusseau, É., Finet, G. and Cloutier, G.: on the potential of the lagrangian speckle model estimator to characterize atherosclerotic plaques in endovascular elastography: *in vitro* experiments using an excised human carotid artery, 85
- Mavropoulos, G., see Varsamidis, K.
- Mayr, E., see Gebauer, D.
- Mazhar, K., see Sena, K.
- Mazor, D., see Topaz, M.
- Mazzer, N., see Rosim, G. C.
- McAteer, J. A., see Bailey, M. R.
- McCarthy, I., see Persson, J.
- McDannold, N., see Silcox, C. E.

McDannold, N., Vykhodtseva, N., Raymond, S., Jolesz, F. A. and Hynynen, K.: MRI-guided targeted blood-brain barrier disruption with focused ultrasound: histological findings in rabbits, 1527

McDicken, N., see Bennett, M.

McDicken, W. N., see Butler, M. B.

McDicken, W. N., see Sboros, V.

McGregor, J., see Kawase, Y.

McLaughlin, S., see Bennett, M.

McLoughlin, A. J., see Gherardini, L.

Meairs, S., see Kern, R.

Mei, X.-G., see Zhao, Y.-Z.

melanoma

fatty changes as a misleading factor in the evaluation with ultrasound of superficial lymph nodes (Giovagnorio), 1017

Mercier, L., Langø, T., Lindseth, F. and Collins, D. L.: a review of calibration techniques for freehand 3-D ultrasound systems, 449 (Review) – correct version

Mercier, L., Langø, T., Lindseth, F. and Collins, L. D.: a review of calibration techniques for freehand 3-D ultrasound systems, 143 (Review)

Merritt, C. R. B., see Hoyt, K.

Meves, S., see Krogias, C.

Meyerstein, D., see Topaz, M.

Meyerstein, N., see Topaz, M.

Meyer-Wiethe, K., Cangür, H. and Seidel, G.: comparison of different mathematical models to analyze diminution kinetics of ultrasound contrast enhancement in a flow phantom, 93

microbubbles

absolute measurement of ultrasonic backscatter from single microbubbles (Sboros), 1063

advantages in using multifrequency excitation of contrast microbubbles for enhancing echo particle image velocimetry techniques: initial numerical studies using rectangular and triangular waves (Zheng), 99

an ultrasonic microbubble semi-intermodulated imaging technique (Wu), 1199

augmentation of cardiac protein delivery using ultrasound targeted microbubble destruction (Bekeredjian), 687

comparison of different mathematical models to analyze diminution kinetics of ultrasound contrast enhancement in a flow phantom (Meyer-Wiethe), 93

contrast media induces hypoperfusion in kidneys with ureteral stone: Doppler US study (Unal), 31

delivery of oligodeoxynucleotides into human saphenous veins and the adjunct effect of ultrasound and microbubbles (Kodama), 1683

effectiveness of lipid microbubbles and ultrasound in de clotting thrombosis (Xie), 979

erythrocytes, as well as microbubble contrast agents, are important factors

- in improving thermal and therapeutic effects of high-intensity focused ultrasound (Takegami), 385
- grey-scale contrast enhancement in rabbit liver with Sonovue™ at different doses (Li), 185
- high-speed optical observations of contrast agent destruction (Bouakaz), 391
- improvements in elastographic contrast-to-noise ratio using spatial-angular compounding (Techavipoo), 529
- insonation facilitates plasmid DNA transfection into the central nervous system and microbubbles enhance the effect (Manome), 693
- laser Doppler anemometry measurements of the shear stresses on ultrasonic contrast agent microbubbles attached to agar (Butler), 545
- modeling ultrasound contrast measurement of blood flow and perfusion in biological tissue (Thijssen), 279
- MRI-guided targeted blood-brain barrier disruption with focused ultrasound: histological findings in rabbits (McDannold), 1527
- on the relationship between encapsulated ultrasound contrast agent and pressure (Adam), 673
- on the suitability of broadband attenuation measurement for characterizing contrast microbubbles (Chatterjee), 781
- optimising phase and amplitude modulation schemes for imaging microbubble contrast agents at low acoustic power (Eckersley), 213
- preparation, characterization and *in vivo* observation of phospholipid-based gas-filled micro-bubbles containing Hirudin (Zhao), 1237
- pressure-dependent attenuation with microbubbles at low mechanical index (Tang), 377
- property and contrast-enhancement effects of lipid ultrasound contrast agent: a preliminary experimental study (Zhao), 537
- semiquantitative analysis of ultrasonic cerebral perfusion imaging (Krogias), 1007
- sonic activation of molecularly-targeted nanoparticles accelerates transmembrane lipid delivery to cancer cells through contact-mediated mechanisms: implications for enhanced local drug delivery (Crowder), 1693
- targeting vascular endothelium with Avidin microbubbles (Korpanty), 1279 (Technical Note)
- the effect of size on the acoustic response of polymer-shelled contrast agents (Bloch), 439 (Technical Note)
- the influence of agent delivery mode on cardiomyocyte injury induced by myocardial contrast echocardiography in rats (Miller), 1257
- time and pressure dependence of acoustic signals radiated from microbubbles (Ganor), 1367
- transcranial ultrasound angiography (tUSA): a new approach for contrast specific imaging of intracranial arteries (Hölscher), 1001
- ultrasound-microbubble-induced neovascularization in mouse skeletal muscle (Chappell), 1411
- vascular effects induced by combined 1-MHz ultrasound and microbubble contrast agent treatments *in vivo* (Hwang), 553
- Miller, D. L., Dou, C. and Armstrong, W. F.: the influence of agent delivery mode on cardiomyocyte injury induced by myocardial contrast echocardiography in rats, 1257
- Miller, J. G., see Baldwin, S. L.
- Miller, J. G., see Holland, M. R.
- Miller, N. A., see Bailey, M. R.

Miller, N. R., Bograchev, K. M. and Bamber, J. C.: ultrasonic temperature imaging for guiding focused ultrasound surgery: effect of angle between imaging beam and therapy beam, 401

Milowska, K. and Gabryelak, T.: synergistic effect of ultrasound and phthalocyanines on nucleated erythrocytes *in vitro*, 1707

Milowska, K., Gabryelak, T., Lypacewicz, G., Tymkiewicz, R. and Nowicki, A.: effect of ultrasound on nucleated erythrocytes, 129

Min, B.-H., see Park, S. R.

mitral valve

evaluation of cardiac function by tissue Doppler echocardiography: hemodynamic determinants and clinical application (Yu), 23

Miyamoto, M., see Mukai, S.

Moilanen, P., see Muller, M.

Molloy, J., see Dandekar, S.

Moon, W. K., see Chen, W.-M.

Moran, C. M., see Butler, M. B.

Moran, C. M., see Sboros, V.

Morganti, T., Ricci, S., Vittone, F., Palombo, C. and Tortoli, P.: clinical validation of common carotid artery wall distension assessment based on multigate Doppler processing, 937

Morganti, T., see Fidanzati, P.

MRI

elastography for the follow-up of high-intensity focused ultrasound prostate cancer treatment: initial comparison with MRI (Curiel), 1461

MRI-guided ultrasonic heating allows spatial control of exogenous luciferase in canine prostate (Silcox), 965

Mukai, S., Ito, H., Nakagawa, Y., Akiyama, H., Miyamoto, M. and Nakamura, T.: transforming growth factor- β_1 mediates the effects of low-intensity pulsed ultrasound in chondrocytes, 1713

Mukdadi, O., see Zheng, H.

Muller, M., Moilanen, P., Bossy, E., Nicholson, P., Kilappa, V., Timonen, J., Talmant, M., Cheng, S. and Laugier, P.: comparison of three ultrasonic axial transmission methods for bone assessment, 633

Muntwyler, J., see Aschkenasy, S. V.

Muratore, R., see Otsuka, R.

musculoskeletal

3-D measurement of body tissues based on ultrasound images with 3-D spatial information (Huang), 1607

a new scanning approach for limb extremities using a water bag in freehand 3-D ultrasound (Huang), 575 (Technical Note)

correlation of ultrasonographic findings to Tossy's and Rockwood's classification of acromioclavicular joint injuries (Heers), 725

fetal spine ossification: the gender and individual differences illustrated by ultrasonography (Vignolo), 733

low back pain, the stiffness of the sacroiliac joint: a new method using ultrasound (Vlaanderen), 39

myeloid leukaemia

monitoring structural changes in cells with high-frequency ultrasound signal statistics (Tunis), 1041

Myers, D. D., see Xie, H.

N

Nacitarhan, S., see Nacitarhan, V.

Nacitarhan, V., Elden, H., Kisa, M., Kaptanoglu, E. and Nacitarhan, S.: the effects of therapeutic ultrasound on heart rate variability: a placebo controlled trial, 643

Nadkarni, S. K., Boughner, D. and Fenster, A.: image-based cardiac gating for three-dimensional intravascular ultrasound imaging, 53

Nagawa, H., see Takegami, K.

Nagueh, S. F., see Ding, C.

Nakagawa, Y., see Mukai, S.

Nakamura, K., see Chikui, T.

Nakamura, S., see Chikui, T.

Nakamura, T., see Mukai, S.

Nakayama, K., see Manome, Y.

Nakayama, N., see Manome, Y.

Nayak, V., see Lee, S.

Naylor, A. R., see Cowe, J.

Neild, A., see Haake, A.

Nelson, R. C., see Fahey, B. J.

Nesje, L. B., see Andreassen, A. H.

Nessler, T., see Wagner, B.

Netto, P. V. S., see Da Costa, A. G.

neurosurgery

strain processing of intraoperative ultrasound images of brain tumours: initial results (Selbekk), 45

Nicholson, P., see Muller, M.

Nightingale, K. R., see Fahey, B. J.

Nikiforidis, G., see Tsantis, S.

Nishimura, T., see Horiuchi, K.

Nixdorff, U., see Schäfer, S.

Noble, J. A., see Gooding, M. J.

Noble, J. A., see Tang, M.-X.

Noble, M. L., see Lafon, C.

non-linear propagation

broadband attenuation and nonlinear propagation in biological fluids: an experimental facility and measurements (Verma), 1723

Nowicki, A., see Milowska, K.

Nowicki, A.: in memoriam: Leszek Filipczynski, 141

O

O'Donnell, M., see Xie, H.

OCT

in vivo volumetric analysis of coronary stent using optical coherence tomography with a novel balloon occlusion-flushing catheter: a comparison with intravascular ultrasound (Kawase), 1343

Ødegaard, S., see Andreassen, A. H.

Oe, Y., see Otsuka, R.

Oechslin, E., see Aschkenasy, S. V.

Offiah, I., see Kodama, T.

Ohl, C. D., see Arora, M.

oligodeoxynucleotides

delivery of oligodeoxynucleotides into human saphenous veins and the adjunct effect of ultrasound and microbubbles (Kodama), 1683

Oobu, K., see Chikui, T.

Ophir, J., see Doyley, M. M.

Ophir, J., see Hoyt, K.

Ophir, J., see Righetti, R.

Orthner, E., see Gebauer, D.

osteoarthritis

the effect of sonication on simulated osteoarthritis. Part I: effects of 1 MHz ultrasound on uptake of hyaluronan into the rabbit synovium (Park), 1551

the effect of sonication on simulated osteoarthritis. Part II: alleviation of osteoarthritis pathogenesis by 1 MHz ultrasound with simultaneous hyaluronate injection (Park), 1559

osteoporosis

bone microstructure and elastic tissue properties are reflected in QUS axial transmission measurements (Raum), 1225

comparison of three ultrasonic axial transmission methods for bone assessment (Muller), 633

determination of the elasticity coefficient for a single trabecula of a cancellous bone: scanning acoustic microscopy approach (Litniewski), 1361

in vitro speed of sound measurement at intact human femur specimens (Haïat), 987

the ability of peripheral quantitative ultrasound to identify patients with low bone mineral density in the hip or spine (Cook), 625

Otsuka, R., Fujikura, K., Hirata, K., Pulerwitz, T., Oe, Y., Suzuki, T., Sciacca, R., Marboe, C., Wang, J., Burkhoff, D., Muratore, R., Lizzi, F. L. and Homma, S.: *in vitro* ablation of cardiac valves using high-intensity focused ultrasound, 109

Ou, Y.-F., see Chen, C.-M.

P

Pacileo, G., see Di Salvo, G.

Padilla, F., see Haiat, G.

Paladini, D., see Di Salvo, G.

Palal, B., see Tabel, G. M.

Palma, M., see Di Salvo, G.

Palmeri, M. L., see Fahey, B. J.

Palombo, C., see Morganti, T.

Pan, H., Zhou, Y., Izadnegahdar, O., Cui, J. and Deng, C. X.: study of sonoporation dynamics affected by ultrasound duty cycle, 849

Parat, C., see Waterman, D. O.

Parizotto, N. A., see Koeke, P. U.

Park, S. R., Jang, K. W., Park, S.-H., Cho, H. S., Jin, C. Z., Choi, M. J., Chung, S. I. and Min, B.-H.: the effect of sonication on simulated osteoarthritis. Part I: effects of 1 MHz ultrasound on uptake of hyaluronan into the rabbit synovium, 1551

Park, S. R., Park, S.-H., Jang, K. W., Cho, H. S., Cui, J. H., An, H. J., Choi, M. J., Chung, S. I. and Min, B.-H.: the effect of sonication on simulated osteoarthritis. Part II: alleviation of osteoarthritis pathogenesis by 1 MHz ultrasound with simultaneous hyaluronate injection, 1559

Park, S.-H., see Park, S. R.

Parodi, A., see Vignolo, M.

parotid

sonohistology for the computerized differentiation of parotid gland tumors (Scheipers), 1287

Partridge, T., see Kodama, T.

Pearson, G., see Angelini, E. D.

Pendergrass, S. A., see Doyley, M. M.

perfusion

comparison of different mathematical models to analyze diminution kinetics of ultrasound contrast enhancement in a flow phantom (Meyer-Wiethe), 93

contrast media induces hypoperfusion in kidneys with ureteral stone: Doppler US study (Unal), 31

grey-scale contrast enhancement in rabbit liver with Sonovue™ at different doses (Li), 185

modeling ultrasound contrast measurement of blood flow and perfusion in biological tissue (Thijssen), 279

semiquantitative analysis of ultrasonic cerebral perfusion imaging (Krogias), 1007

periventricular leukomalacia

a tissue-specific adaptive texture filter for medical ultrasound images (Stippel), 1211

Perren, F., see Kern, R.

Persson, J., Hansen, E., Lidgren, L. and McCarthy, I.: modelling of the heat distribution in the intervertebral disk, 709

Peyrin, F., see Raum, K.

phacoemulsification

acoustic cavitation in phacoemulsification and the role of antioxidants (Topaz), 1123

phantom

a phantom with reduced complexity for spatial 3-D ultrasound calibration (Dandekar), 1083

gel phantom for use in high-intensity focused ultrasound dosimetry (Lafon), 1383

Philips, W., see Stippel, G.

phonophoresis

comparative study of the efficacy of the topical application of hydrocortisone, therapeutic ultrasound and phonophoresis on the tissue repair process in rat tendons (Koeke), 345

diclofenac phonophoresis in human volunteers (Rosim), 337

phthalocyanines

synergistic effect of ultrasound and phthalocyanines on nucleated erythrocytes *in vitro* (Milowska), 1707

Pietryga, M., see Dubiel, M.

Piliouras, N., see Tsantis, S.

Piotrowska-Jastrzebska, J., see Halaba, Z. P.

Pishchalnikov, Y. A., see Bailey, M. R.

Pishchalnikova, I. V., see Bailey, M. R.

Pishko, M., see Lee, S.

Pistorio, A., see Vignolo, M.

Plett, M. and Beach, K. W.: ultrasonic vibration detection with wavelets: preliminary results, 367

Pluskiewicz, W., see Halaba, Z. P.

Poepping, T. L., see Khoshniat, M.

Poerner, T. C., Goebel, B., Geiger, T., Haghi, D., Borggreffe, M. and Haase, K. K.: physiological range of mechanical synchronicity of the human heart: comparison between different echocardiographic assessment modalities, 1163

Poets, C., see Eehalt, S.

Poon, T. C. and Rohling, R. N.: comparison of calibration methods for spatial tracking of a 3-D ultrasound probe, 1095

pop & drop

augmentation of cardiac protein delivery using ultrasound targeted microbubble destruction (Bekeredjian), 687

MRI-guided targeted blood-brain barrier disruption with focused ultrasound: histological findings in rabbits (McDannold), 1527

preparation, characterization and *in vivo* observation of phospholipid-based gas-filled micro-bubbles containing Hirudin (Zhao), 1237

Porter, T. R., see Xie, F.

Posdamer, S. H., see Holland, M. R.

Postert, T., see Krogias, C.

Prager, R. W., see Gee, A. H.

Prager, R. W., see Hassenpflug, P.

Prager, R. W., see Treece, G. M.

prenatal diagnosis

fetal arrhythmias: natural history and management (Vergani), 1

pressure

on the relationship between encapsulated ultrasound contrast agent and pressure (Adam), 673

time and pressure dependence of acoustic signals radiated from micro-bubbles (Ganor), 1367

Price, R. J., see Chappell, J. C.

Primozich, J. F., see Leotta, D. F.

prostate

elastography for the follow-up of high-intensity focused ultrasound prostate cancer treatment: initial comparison with MRI (Curjel), 1461

MRI-guided ultrasonic heating allows spatial control of exogenous luciferase in canine prostate (Silcox), 965

Prusa, A. R., see Haiden, N.

Przuntek, H., see Krogias, C.

Pugh, N. D., see Coleman, D. P.

Pulerwitz, T., see Otsuka, R.

pulse inversion

improvement of tissue harmonic imaging using the pulse-inversion technique (Ma), 889

Pye, S. D., see Sboros, V.

Q

QA

absolute measurement of ultrasonic backscatter from single microbubbles (Sboros), 1063

an ultrasonic microbubble semi-intermodulated imaging technique (Wu), 1199

investigation of the effect of subcutaneous fat on image quality performance of 2D conventional imaging and tissue harmonic imaging (Browne), 957

QUS

bone microstructure and elastic tissue properties are reflected in QUS axial transmission measurements (Raum), 1225

comparison of phalangeal ultrasound and dual energy X-ray absorptiometry in healthy male and female adolescents (Halaba), 1617

- comparison of three ultrasonic axial transmission methods for bone assessment (Muller), 633
in vitro speed of sound measurement at intact human femur specimens (Haïat), 987
 the ability of peripheral quantitative ultrasound to identify patients with low bone mineral density in the hip or spine (Cook), 625

R

- Rabkin, B. A., Zderic, V. and Vaezy, S.: hyperecho in ultrasound images of HIFU therapy: involvement of cavitation, 947
 Radel, S., see Gherardini, L.
radiofrequency ablation
 monitoring stiffness changes in lesions after radiofrequency ablation at different temperatures and durations of ablation (Bharat), 415
 Raffoul, H., see Diebold, B.
 Rakebrandt, F., see Coleman, D. P.
 Rao, L., see Ding, C.
 Raum, K., Leguerney, I., Chandelier, F., Bossy, E., Talmant, M., Saïed, A., Peyrin, F. and Laugier, P.: bone microstructure and elastic tissue properties are reflected in QUS axial transmission measurements, 1225
 Raymond, S., see McDannold, N.
 Regelsberger, J., Fritzsche, E., Langer, N. and Westphal, M.: intraoperative sonography of intra- and extramedullary tumors, 593
 Reidy, M. A., see Hwang, J. H.

RF

- RF and amplitude-based probe pressure correction for 3D ultrasound (Treece), 493
 RF signals provide additional information on embolic events recorded during TCD monitoring (Cowe), 613
 ultrasonic sound velocity measurement in samples of soft materials through under-resonance excitation (Ammann), 485

renal flow

- contrast media induces hypoperfusion in kidneys with ureteral stone: Doppler US study (Unal), 31

rheumatoid arthritis

- Doppler sonography in assessing disease activity in rheumatoid arthritis (Varsamidis), 739
 Ricci, C., see Di Salvo, G.
 Ricci, S., see Morganti, T.
 Righetti, R., Ophir, J. and Krouskop, T. A.: a method for generating permeability elastograms and Poisson's ratio time-constant elastograms, 803
 Riordan, M. M., Chung, C. S. and Kovacs, S. J.: diabetes and diastolic function: stiffness and relaxation from transmitral flow, 1589
 Roatta, S., see Balbis, S.
 Roessner, M., see Gerdesmeyer, L.

- Rohling, R. N., see Poon, T. C.
Rohling, R., see Archip, N.
Rohling, R., see Chan, C.
Rohrmeister, K., see Haiden, N.
Ropacka, M., see Dubiel, M.
Rosenschein, U., see Schäfer, S.
Rosim, G. C., Barbieri, C. H., Lanças, F. M. and Mazzer, N.: diclofenac phonophoresis in human volunteers, 337
Ross, J. A., see Butler, M. B.
Rouvière, O., see Curiel, L.
Roy, M., see Cheung, A. M. Y.
Rubin, J. M., see Xie, H.
Rücklinger, E., see Haiden, N.
Runk, M. M., see Makin, I. R. S.
Russo, M. G., see Di Salvo, G.
Ryaby, J. P., see Gebauer, D.

S

safety

- antibacterial effects of extracorporeal shock waves (Gerdesmeyer), 115
the effects of residual temperature rise on ultrasound heating (Karagoz), 1665
the influence of agent delivery mode on cardiomyocyte injury induced by myocardial contrast echocardiography in rats (Miller), 1257
Saïed, A., see Raum, K.
Salate, A. C. B., see Koeke, P. U.

salivary gland

- sonographic texture characterization of salivary gland tumors by fractal analyses (Chikui), 1297

SAM

- determination of the elasticity coefficient for a single trabecula of a cancellous bone: scanning acoustic microscopy approach (Litniewski), 1361

saphenous veins

- delivery of oligodeoxynucleotides into human saphenous veins and the adjunct effect of ultrasound and microbubbles (Kodama), 1683

Sapozhnikov, O. A., see Bailey, M. R.

Sapozhnikov, O. A., see Lafon, C.

Sapunar, M., see Adam, D.

Sarkar, K., see Chatterjee, D.

Sboros, V., Pye, S. D., MacDonald, C. A., Gomatam, J., Moran, C. M. and McDicken, W. N.: absolute measurement of ultrasonic backscatter from single microbubbles, 1063

Schaar, J. A., see Baldewsing, R. A.

Schäfer, S., Kliner, S., Klinghammer, L., Kaarmann, H., Lucic, I., Nixdorff, U., Rosenschein, U., Daniel, W. G. and Flachskampf, F. A.: influence of ultrasound operating parameters on ultrasound-induced thrombolysis *in vitro*, 841

Schechner, O., see Greenspan, H.

Scheinowitz, M., see Greenspan, H.

Scheipers, U., Siebers, S., Gottwald, F., Ashfaq, M., Bozzato, A., Zenk, J., Iro, G. and Ermert, H.: sonohistology for the computerized differentiation of parotid gland tumors, 1287

Schöning, M., see Eehalt, S.

Schreppler, N. E., see Chatterjee, D.

Sciacca, R., see Otsuka, R.

segmentation

a tissue-specific adaptive texture filter for medical ultrasound images (Stippel), 1211

automated fetal head detection and measurement in ultrasound images by iterative randomised Hough transform (Lu), 929

cell competition algorithm: a new segmentation algorithm for multiple objects with irregular boundaries in ultrasound images (Chen), 1647

segmentation of fetal ultrasound images (Jardin), 243

segmentation of real-time three-dimensional ultrasound for quantification of ventricular function: a clinical study on right and left ventricles (Angelini), 1143

staging bladder carcinoma by three-dimensional ultrasound rendering (Wagner), 301

ultrasound image segmentation using spectral clustering (Archip), 1485

Sehgal, C. M., see Wood, A. K. W.

Seidel, G., see Meyer-Wiethe, K.

Selbekk, T., Bang, J. and Unsgaard, G.: strain processing of intraoperative ultrasound images of brain tumours: initial results, 45

Sena, K., Level, R. M., Mazhar, K., Sumner, D. R. and Viridi, A. S.: early gene response to low-intensity pulsed ultrasound in rat osteoblastic cells, 703

Shandas, R., see Zheng, H.

shear stress

wall shear stress and related hemodynamic parameters in the fetal descending aorta derived from colour Doppler velocity profiles (Struijk), 1441

Sherar, M. D., see Tunis, A. S.

Shi, H., Chen, Q. and Varghese, T.: a general solution for catheter position effects for strain estimation in intravascular elastography, 1509

Shimizu, H., see Horiuchi, K.

Shipley, J. A., Duck, F. A., Goddard, D. A., Hillman, M. R., Halliwell, M., Jones, M. G. and Thomas, B. T.: automated quantitative volumetric breast ultrasound data-acquisition system, 905

Shohet, R. V., see Bekerredjian, R.

Shohet, R. V., see Korpanty, G.

Short, R. E., see Bloch, S. H.

Shuster, V., see Topaz, M.

Siebers, S., see Scheipers, U.

Sikdar, S., Beach, K. W., Vaezy, S. and Kim, Y.: ultrasonic technique for imaging tissue vibrations: preliminary results, 221

Silcox, C. E., Smith, R. C., King, R., McDannold, N., Bromley, P., Walsh, K. and Hynynen, K.: MRI-guided ultrasonic heating allows spatial control of exogenous luciferase in canine prostate, 965

Sin, M.-h., see Ying, M.

Slayton, M. H., see Makin, I. R. S.

Smith, N. B., see Lee, S.

Smith, R. C., see Silcox, C. E.

Snijders, C. J., see Vlaanderen, E.

Sonmez, S., see Donma, M. M.

sonohistology

sonographic texture characterization of salivary gland tumors by fractal analyses (Chikui), 1297

sonohistology for the computerized differentiation of parotid gland tumors (Scheipers), 1287

sonoporation

insonation facilitates plasmid DNA transfection into the central nervous system and microbubbles enhance the effect (Manome), 693

study of sonoporation dynamics affected by ultrasound duty cycle (Pan), 849

the effect of sonication on simulated osteoarthritis. Part I: effects of 1 MHz ultrasound on uptake of hyaluronan into the rabbit synovium (Park), 1551

the effect of sonication on simulated osteoarthritis. Part II: alleviation of osteoarthritis pathogenesis by 1 MHz ultrasound with simultaneous hyaluronate injection (Park), 1559

Souchon, R., Bouchox, G., Maciejko, E., Lafon, C., Cathignol, D., Bertrand, M. and Chapelon, J.-Y.: monitoring the formation of thermal lesions with heat-induced echo-strain imaging: a feasibility study, 251

Souchon, R., see Curiel, L.

sound speed

bone microstructure and elastic tissue properties are reflected in QUS axial transmission measurements (Raum), 1225

broadband measurements of the frequency dependence of attenuation coefficient and velocity in amniotic fluid, urine and human serum albumin solutions (Verma), 1375

comparison of phalangeal ultrasound and dual energy X-ray absorptiometry in healthy male and female adolescents (Halaba), 1617

in vitro speed of sound measurement at intact human femur specimens (Haïat), 987

ultrasonic sound velocity measurement in samples of soft materials through under-resonance excitation (Ammann), 485

Southgate, J., see Hill, G. E.

Spara, P., see Da Costa, A. G.

speckle

on the potential of the Lagrangian speckle model estimator to characterize atherosclerotic plaques in endovascular elastography: *in vitro* experiments using an excised human carotid artery (Maurice), 85

speckle classification for sensorless freehand 3-D ultrasound (Hassenpflug), 1499

Spence, J. D., see Landry, A.

Spengler, J., see Gherardini, L.

spine

fetal spine ossification: the gender and individual differences illustrated by ultrasonography (Vignolo), 733

spinal tumour

intraoperative sonography of intra- and extramedullary tumors (Regelsberger), 593

Srinivasan, S., see Doyley, M. M.

standing wave trap

a new immobilisation method to arrange particles in a gel matrix by ultrasound standing waves (Gherardini), 261

manipulation of cells using an ultrasonic pressure field (Haake), 857

physical environment of 2-D animal cell aggregates formed in a short pathlength ultrasound standing wave trap (Bazou), 423

steatosis

liver steatosis classification using high-frequency ultrasound (Yeh), 599

Steeegers, E. A. P., see Struijk, P. C.

Steinman, A. H., Yu, A. C. H., Johnston, K. W. and Cobbold, R. S. C.: effects of beam steering in pulsed-wave ultrasound velocity estimation, 1073

Steinman, D. A., see Khoshniat, M.

stent

in vivo volumetric analysis of coronary stent using optical coherence tomography with a novel balloon occlusion-flushing catheter: a comparison with intravascular ultrasound (Kawase), 1343

Stewart, P. A., see Struijk, P. C.

Stickeler, E., see Waterman, D. O.

stiffness

a novel noncontact ultrasound indentation system for measurement of tissue material properties using water jet compression (Lu), 817

determination of the elasticity coefficient for a single trabecula of a cancellous bone: scanning acoustic microscopy approach (Litniewski), 1361

low back pain, the stiffness of the sacroiliac joint: a new method using ultrasound (Vlaanderen), 39

Stippel, G., Philips, W. and Govaert, P.: a tissue-specific adaptive texture filter for medical ultrasound images, 1211

strain

a general solution for catheter position effects for strain estimation in intravascular elastography (Shi), 1509

- a method for generating permeability elastograms and Poisson's ratio time-constant elastograms (Righetti), 803
- comparative evaluation of strain-based and model-based modulus elastography (Doyley), 787
- correspondence of ultrasound elasticity imaging to direct mechanical measurement in aging DVT in rats (Xie), 1351
- determination of the elasticity coefficient for a single trabecula of a cancellous bone: scanning acoustic microscopy approach (Litniewski), 1361
- improvements in elastographic contrast-to-noise ratio using spatial-angular compounding (Techavipoo), 529
- in vivo* elastographic investigation of ethanol-induced hepatic lesions (Hoyt), 607
- investigation of parametric spectral estimation techniques for elasticity imaging (Hoyt), 1109
- laser Doppler anemometry measurements of the shear stresses on ultrasonic contrast agent microbubbles attached to agar (Butler), 545
- monitoring stiffness changes in lesions after radiofrequency ablation at different temperatures and durations of ablation (Bharat), 415
- physiological range of mechanical synchronicity of the human heart: comparison between different echocardiographic assessment modalities (Poerner), 1163
- quantification of regional left and right ventricular longitudinal function in 75 normal fetuses using ultrasound-based strain rate and strain imaging (Di Salvo), 1159
- robustness of reconstructing the Young's modulus distribution of vulnerable atherosclerotic plaques using a parametric plaque model (Baldewsing), 1631
- strain processing of intraoperative ultrasound images of brain tumours: initial results (Selbekk), 45
- Strathmann, K., see Baez, E.
- Strobelt, N., see Vergani, P.
- Struijk, P. C., Stewart, P. A., Fernando, K. L., Mathews, V. J., Loupas, T., Steegers, E. A. P. and Wladimiroff, J. W.: wall shear stress and related hemodynamic parameters in the fetal descending aorta derived from colour Doppler velocity profiles, 1441
- Sullivan, M. E., see Martin-McNulty, B.
- Sumner, D. R., see Sena, K.
- Sun, U., see Haake, A.

surgery

- in vitro* ablation of cardiac valves using high-intensity focused ultrasound (Otsuka), 109
- monitoring the formation of thermal lesions with heat-induced echo-strain imaging: a feasibility study (Souchon), 251
- ultrasonic temperature imaging for guiding focused ultrasound surgery: effect of angle between imaging beam and therapy beam (Miller), 401
- Suzuki, T., see Otsuka, R.
- Szabo, K., see Kern, R.

T

- Tabel, G. M., Hepel, J., Whittaker, P., Palal, B. and Chandraratna, P. A.: hypoechoic areas on ultrasound images of atheroma are not always diagnostic of fatty plaque, 1013
- Tahmasebpour, H., see Archip, N.
- Takegami, K., Kaneko, Y., Watanabe, T., Maruyama, T., Matsumoto, Y. and Nagawa, H.: erythrocytes, as well as microbubble contrast agents, are important factors in improving thermal and therapeutic effects of high-intensity focused ultrasound, 385
- Talmant, M., see Muller, M.
- Talmant, M., see Raum, K.
- Tan, J., see Lu, W.
- Tan, P. H., see Kodama, T.
- Tang, C.-H., see Yang, R.-S.
- Tang, J., see Zhao, Y.-Z.
- Tang, M.-X., Eckersley, R. J. and Noble, J. A.: pressure-dependent attenuation with microbubbles at low mechanical index, 377

targeted microbubbles

- augmentation of cardiac protein delivery using ultrasound targeted microbubble destruction (Bekeredjian), 687
- MRI-guided ultrasonic heating allows spatial control of exogenous luciferase in canine prostate (Silcox), 965
- insonation facilitates plasmid DNA transfection into the central nervous system and microbubbles enhance the effect (Manome), 693
- preparation, characterization and *in vivo* observation of phospholipid-based gas-filled micro-bubbles containing Hirudin (Zhao), 1237
- study of sonoporation dynamics affected by ultrasound duty cycle (Pan), 849
- targeting vascular endothelium with Avidin microbubbles (Korpanty), 1279 (Technical Note)
- Techavipoo, U. and Varghese, T.: improvements in elastographic contrast-to-noise ratio using spatial-angular compounding, 529
- Techavipoo, U., see Bharat, S.
- Tempfer, C., see Waterman, D. O.

tendon

- comparative study of the efficacy of the topical application of hydrocortisone, therapeutic ultrasound and phonophoresis on the tissue repair process in rat tendons (Koeke), 345

texture analysis

- texture analysis in digitally-acquired echocardiographic images: the effect of Jpeg compression and video storage (Aschkenasy), 361

therapy

- a new immobilisation method to arrange particles in a gel matrix by ultrasound standing waves (Gherardini), 261

- a new ultrasound method for determining the acoustic phase shifts caused by the skull bone (Aarnio), 771
- antibacterial effects of extracorporeal shock waves (Gerdesmeyer), 115
- cavitation detection during shock-wave lithotripsy (Bailey), 1245
- comparative study of the efficacy of the topical application of hydrocortisone, therapeutic ultrasound and phonophoresis on the tissue repair process in rat tendons (Koeke), 345
- delivery of oligodeoxynucleotides into human saphenous veins and the adjunct effect of ultrasound and microbubbles (Kodama), 1683
- diclofenac phonophoresis in human volunteers (Rosim), 337
- early gene response to low-intensity pulsed ultrasound in rat osteoblastic cells (Sena), 703
- effectiveness of lipid microbubbles and ultrasound in de clotting thrombosis (Xie), 979
- erythrocytes, as well as microbubble contrast agents, are important factors in improving thermal and therapeutic effects of high-intensity focused ultrasound (Takegami), 385
- gel phantom for use in high-intensity focused ultrasound dosimetry (Lafon), 1383
- high-speed optical observations of contrast agent destruction (Bouakaz), 391
- hyperecho in ultrasound images of HIFU therapy: involvement of cavitation (Rabkin), 947
- in vitro* ablation of cardiac valves using high-intensity focused ultrasound (Otsuka), 109
- influence of ultrasound operating parameters on ultrasound-induced thrombolysis *in vitro* (Schäfer), 841
- insonation facilitates plasmid DNA transfection into the central nervous system and microbubbles enhance the effect (Manome), 693
- investigation of intensity thresholds for ultrasound tissue erosion (Xu), 1673
- involvement of Adenosine 5'-Triphosphate in ultrasound-induced fracture repair (Hayton), 1131
- low-intensity pulsed ultrasound: effects on nonunions (Gebauer), 1391
- miniaturized ultrasound arrays for interstitial ablation and imaging (Makin), 1539
- modelling of the heat distribution in the intervertebral disk (Persson), 709
- monitoring stiffness changes in lesions after radiofrequency ablation at different temperatures and durations of ablation (Bharat), 415
- study of sonoporation dynamics affected by ultrasound duty cycle (Pan), 849
- synergistic effect of ultrasound and phthalocyanines on nucleated erythrocytes *in vitro* (Milowska), 1707
- the antivasular action of physiotherapy ultrasound on murine tumors (Wood), 1403
- the effect of low-intensity pulsed ultrasound on repair of epithelial cell monolayers *in vitro* (Hill), 1701
- the effects of low-intensity ultrasound on growing bone after sciatic neurectomy (Yang), 431
- the effects of therapeutic ultrasound on heart rate variability: a placebo controlled trial (Nacitarhan), 643
- ultrasonic temperature imaging for guiding focused ultrasound surgery: effect of angle between imaging beam and therapy beam (Miller), 401
- ultrasound-microbubble-induced neovascularization in mouse skeletal muscle (Chappell), 1411

vascular effects induced by combined 1-MHz ultrasound and microbubble contrast agent treatments *in vivo* (Hwang), 553

thermal effects

modelling of the heat distribution in the intervertebral disk (Persson), 709
the effects of residual temperature rise on ultrasound heating (Karagoz), 1665
thermal assessment of 40-MHz pulsed Doppler ultrasound in human eye (Cucevic), 565

thermal imaging

ultrasonic temperature imaging for guiding focused ultrasound surgery: effect of angle between imaging beam and therapy beam (Miller), 401
Thijssen, J. M. and de Korte, C. L.: modeling ultrasound contrast measurement of blood flow and perfusion in biological tissue, 279 (Technical Note)

Thomas, B. T., see Shipley, J. A.

Thorne, M. L., see Khoshniat, M.

thrombosis

effectiveness of lipid microbubbles and ultrasound in declotting thrombosis (Xie), 979

thyroid

development of a support vector machine-based image analysis system for assessing the thyroid nodule malignancy risk on ultrasound (Tsantis), 1451

Tian, Z.-M., Wan, M.-X., Lu, M.-Z., Wang, X.-D. and Wang, L.: the alteration of protein profile of Walker 256 carcinoma cells during the apoptotic process induced by ultrasound, 121

Timonen, J., see Muller, M.

tissue characterisation

3-D ultrasound texture classification using run difference matrix (Chen), 763
a novel noncontact ultrasound indentation system for measurement of tissue material properties using water jet compression (Lu), 817
a tissue-specific adaptive texture filter for medical ultrasound images (Stippel), 1211
anisotropy of apparent backscatter in the short-axis view of mouse hearts (Holland), 1623
automated fetal head detection and measurement in ultrasound images by iterative randomised Hough transform (Lu), 929
cell competition algorithm: a new segmentation algorithm for multiple objects with irregular boundaries in ultrasound images (Chen), 1647
detection of blood coagulation and clot formation using quantitative ultrasonic parameters (Huang), 1567
development and validation of an *in vivo* analysis tool to identify changes in carotid plaque tissue types in serial 3-D ultrasound scans (Coleman), 329
development of a support vector machine-based image analysis system for assessing the thyroid nodule malignancy risk on ultrasound (Tsantis), 1451
estimating myocardial attenuation from M-mode ultrasonic backscatter (Baldwin), 477

- fatty changes as a misleading factor in the evaluation with ultrasound of superficial lymph nodes (Giovagnorio), 1017
- hypoechoic areas on ultrasound images of atheroma are not always diagnostic of fatty plaque (Tabel), 1013
- in vitro* speed of sound measurement at intact human femur specimens (Haïat), 987
- liver steatosis classification using high-frequency ultrasound (Yeh), 599
- monitoring structural changes in cells with high-frequency ultrasound signal statistics (Tunis), 1041
- on the suitability of broadband attenuation measurement for characterizing contrast microbubbles (Chatterjee), 781
- robustness of reconstructing the Young's modulus distribution of vulnerable atherosclerotic plaques using a parametric plaque model (Baldewsing), 1631
- sonographic texture characterization of salivary gland tumors by fractal analyses (Chikui), 1297
- sonohistology for the computerized differentiation of parotid gland tumors (Scheipers), 1287
- ultrasonic sound velocity measurement in samples of soft materials through under-resonance excitation (Ammann), 485
- ultrasonographic characterization of the uterine artery in the nonestrus bitch (Alvarez-Clau), 1583

tissue harmonic imaging

- empirical mode decomposition and tissue harmonic imaging (Bennett), 1051
- improvement of tissue harmonic imaging using the pulse-inversion technique (Ma), 889
- reduction of stent artifacts using high-frequency harmonic ultrasound imaging (Frijlink), 1335

Tjetjjs, V., see Varsamidis, K.

Tokumori, K., see Chikui, T.

Topaz, M., Shuster, V., Assia, E. I., Meyerstein, D., Meyerstein, N., Mazor, D. and Gedanken, A.: acoustic cavitation in phacoemulsification and the role of antioxidants, 1123

Torrisi, C., see Vignolo, M.

Tortoli, P., see Fidanzati, P.

Tortoli, P., see Krams, R.

Tortoli, P., see Morganti, T.

Trahey, G. E., see Fahey, B. J.

transdermal penetration

- diclofenac phonophoresis in human volunteers (Rosim), 337
- comparative study of the efficacy of the topical application of hydrocortisone, therapeutic ultrasound and phonophoresis on the tissue repair process in rat tendons (Koeke), 345

Treece, G. M., Gee, A. H. and Prager, R. W.: RF and amplitude-based probe pressure correction for 3D ultrasound, 493

Treece, G. M., see Gee, A. H.

Treece, G. M., see Hassenpflug, P.

- Tsantis, S., Cavouras, D., Kalatzis, I., Piliouras, N., Dimitropoulos, N. and Nikiforidis, G.: development of a support vector machine-based image analysis system for assessing the thyroid nodule malignancy risk on ultrasound, 1451
- Tsao, J., see Wu, C.-Y.
- Tsui, P.-H., see Huang, C.-C.
- Tsutsui, J. M., see Xie, F.
- Tucker, J., see Cook, R. B.
- Tunis, A. S., Czarnota, G. J., Giles, A., Sherar, M. D., Hunt, J. W. and Kolios, M. C.: monitoring structural changes in cells with high-frequency ultrasound signal statistics, 1041
- Tymkiewicz, R., see Milowska, K.

U

- Unal, B., Kara, S. and Bilgili, Y.: contrast media induces hypoperfusion in kidneys with ureteral stone: Doppler US study, 31
- Unger, E. C., see Xie, F.
- Unsgaard, G., see Selbekk, T.
- Ustymowicz, A., Mariak, Z., Weigele, J., Lyson, T., Kochanowicz, J. and Krejza, J.: normal reference intervals and ranges of side-to-side and day-to-day variability of ocular blood flow Doppler parameters, 895

V

- Vaezy, S., see Lafon, C.
- Vaezy, S., see Rabkin, B. A.
- Vaezy, S., see Sikdar, S.
- van der Loo, B., see Aschkenasy, S. V.
- van der Steen, A. F. W., see Baldewsing, R. A.
- van der Steen, A. F. W., see Frijlink, M. E.
- van der Steen, A. F. W., see Krams, R.
- Varghese, T., see Shi, H.
- Varghese, T., see Bharat, S.
- Varghese, T., see Techavipoo, U.
- Varsamidis, K., Varsamidou, E., Tjetjjs, V. and Mavropoulos, G.: Doppler sonography in assessing disease activity in rheumatoid arthritis, 739
- Varsamidou, E., see Varsamidis, K.
- Vehmas, T., Kaukiainen, A., Immonen-Räihä, P., Lohman, M. and Luoma, K.: liver echogenicity: relation to systemic blood pressure and other components of the metabolic syndrome, 293
- ventricle*
- 3-D ultrasonographic imaging of the cerebral ventricular system in very low birth weight infants (Haiden), 7
- dynamic three-dimensional visualization of the left ventricle by intracardiac echocardiography (Ding), 15

- left ventricular wall motion analysis using real-time three-dimensional ultrasound (Kuo), 203
- quantification of regional left and right ventricular longitudinal function in 75 normal fetuses using ultrasound-based strain rate and strain imaging (Di Salvo), 1159
- segmentation of real-time three-dimensional ultrasound for quantification of ventricular function: a clinical study on right and left ventricles (Angelini), 1143
- Venturini, P. L., see Vignolo, M.
- Vergani, P., Mariani, E., Ciriello, E., Locatelli, A., Strobelt, N., Galli, M. and Ghidini, A.: fetal arrhythmias: natural history and management, 1
- Vergona, R., see Martin-McNulty, B.
- Verma, P. K., Humphrey, V. F. and Duck, F. A.: broadband attenuation and nonlinear propagation in biological fluids: an experimental facility and measurements, 1723
- Verma, P. K., Humphrey, V. F. and Duck, F. A.: broadband measurements of the frequency dependence of attenuation coefficient and velocity in amniotic fluid, urine and human serum albumin solutions, 1375
- Versluis, M., see Bouakaz, A.
- Vetter, M., see Baez, E.
- vibration potential
imaging with the ultrasonic vibration potential: a theory for current generation (Gusev), 273
- vibrations*
- low back pain, the stiffness of the sacroiliac joint: a new method using ultrasound (Vlaanderen), 39
- ultrasonic technique for imaging tissue vibrations: preliminary results (Sikdar), 221
- ultrasonic vibration detection with wavelets: preliminary results (Plett), 367
- Vignolo, M., Ginocchio, G., Parodi, A., Torrisi, C., Pistorio, A., Venturini, P. L., Aicardi, G. and De Biasio, P.: fetal spine ossification: the gender and individual differences illustrated by ultrasonography, 733
- Vincelette, J., see Martin-McNulty, B.
- Virdi, A. S., see Sena, K.
- Vittone, F., see Morganti, T.
- Vlaanderen, E., Conza, N. E., Snijders, C. J., Bouakaz, A. and de Jong, N.: low back pain, the stiffness of the sacroiliac joint: a new method using ultrasound, 39
- von Eiff, C., see Gerdesmeyer, L.
- von Ramm, O. T., see Kuo, J.
- Vykhodtseva, N., see McDannold, N.

W

- Wagner, B., Nesslerer, T., Bartsch, Jr., G., Hautmann, R. E. and Gottfried, H.-W.: staging bladder carcinoma by three-dimensional ultrasound rendering, 301

Wakeford, T. W., see Xie, H.

wall motion

optimisation of factor analysis of the left ventricle in echocardiography for detecting wall motion abnormalities (Diebold), 1597

Wallace, K. D., see Baldwin, S. L.

Wallace, K. D., see Holland, M. R.

Walsh, K., see Silcox, C. E.

Wan, M.-X., see Tian, Z.-M.

Wandl-Vergesslich, K., see Haiden, N.

Wang, J., see Otsuka, R.

Wang, L., see Tian, Z.-M.

Wang, S.-H., see Huang, C.-C.

Wang, X., see Li, J.

Wang, X.-D., see Tian, Z.-M.

Wang, Y.-X., see Martin-McNulty, B.

Watanabe, T., see Takegami, K.

Waterman, D. O., Tempfer, C., Hefler, L. A., Parat, C. and Stickeler, E.: ultrasound morphology of invasive lobular breast cancer is different compared with other types of breast cancer, 167

Watson, A. J., see Browne J. E.

Weigele, J., see Ustymowicz, A.

Weitzel, W. F., see Xie, H.

Westphal, M., see Regelsberger, J.

Whittaker, P., see Tabel, G. M.

Wickline, S. A., see Crowder, K. C.

Wilkening, W. G., see Hölscher, T.

Wilkening, W., see Krogias, C.

Wilson, D.: imaging strategies for the shoulder, 585 (Book Review)

Wisner, E. R., see Bloch, S. H.

Wladimiroff, J. W., see Struijk, P. C.

Wood, A. K. W., Ansaloni, S., Ziemer, L. S., Lee, W. M.-F., Feldman, M. D. and Sehgal, C. M.: the antivasular action of physiotherapy ultrasound on murine tumors, 1403

Woodcock, J. P., see Coleman, D. P.

wound healing

the effect of low-intensity pulsed ultrasound on repair of epithelial cell monolayers *in vitro* (Hill), 1701

Wroblewski, S. K., see Xie, H.

Wu, C.-C., see Yu, W.-C.

Wu, C.-Y., Tsao, J. and Chou, Y.-H.: an ultrasonic microbubble semi-intermodulated imaging technique, 1199

Wu, Z., see Doyley, M. M.

X

- Xie, F., Tsutsui, J. M., Lof, J., Unger, E. C., Johanning, J., Culp, W. C., Matsunaga, T. and Porter, T. R.: effectiveness of lipid microbubbles and ultrasound in de clotting thrombosis, 979
- Xie, H., Kim, K., Aglyamov, S. R., Emelianov, S. Y., O'Donnell, M., Weitzel, W. F., Wroblewski, S. K., Myers, D. D., Wakeford, T. W. and Rubin, J. M.: correspondence of ultrasound elasticity imaging to direct mechanical measurement in aging DVT in rats, 1351
- Xu, Z., Fowlkes, J. B., Ludomirsky, A. and Cain, C. A.: investigation of intensity thresholds for ultrasound tissue erosion, 1673

Y

- Yang, M., see Baldwin, S. L.
- Yang, R.-S., Chen, Y.-Z., Huang, T.-H., Tang, C.-H., Fu, W.-M., Lu, B.-Y. and Lin, W.-L.: the effects of low-intensity ultrasound on growing bone after sciatic neurectomy, 431
- Yaralioglu, G. G., see Marentis, T. C.
- Yeh, F.-C., see Chen, C.-M.
- Yeh, W.-C., Jeng, Y.-M., Li, C.-H., Lee, P.-H. and Li, P.-C.: liver steatosis classification using high-frequency ultrasound, 599
- Ying, M. and Sin, M.-h.: comparison of extended field of view and dual imaging ultrasound techniques: accuracy and reliability of distance measurements in phantom study, 79
- Yoneyama, R., see Kawase, Y.
- Yoshida, K., see Horiuchi, K.
- Yoshiura, K., see Chikui, T.
- Yu, A. C. H., see Steinman, A. H.
- Yu, C.-H., see Chang, C.-H.
- Yu, C.-H., see Liu, I.-F.
- Yu, W.-C., Lee, W.-S., Huang, W.-P., Wu, C.-C., Lin, Y.-P. and Chen, C.-H.: evaluation of cardiac function by tissue Doppler echocardiography: hemodynamic determinants and clinical application, 23
- Yu, X., see Li, J.
- Yuen, J. C., see Lafon, C.

Z

- Zderic, V., see Lafon, C.
- Zderic, V., see Rabkin, B. A.
- Zenk, J., see Scheipers, U.
- Zhang, B. and Kanzaki, T.: Doppler waveforms: the relation between ductus venosus and inferior vena cava, 1173
- Zhang, D., see Ma, Q.
- Zhang, Y., see Zhao, Y.-Z.

- Zhao, Y.-Z., Liang, H.-D., Mei, X.-G. and Halliwell, M.: preparation, characterization and *in vivo* observation of phospholipid-based gas-filled microbubbles containing Hirudin, 1237
- Zhao, Y.-Z., Luo, Y.-K., Zhang, Y., Mei, X.-G. and Tang, J.: property and contrast-enhancement effects of lipid ultrasound contrast agent: a preliminary experimental study, 537
- Zheng, H., Mukdadi, O., Kim, H., Hertzberg, J. R. and Shandas, R.: advantages in using multifrequency excitation of contrast microbubbles for enhancing echo particle image velocimetry techniques: initial numerical studies using rectangular and triangular waves, 99
- Zheng, Y. P., see Huang, Q. H.
- Zheng, Y. P., see Lu, M. H.
- Zheng, Y.-P., see Huang, Q.-H.
- Zhou, Y., see Pan, H.
- Ziemer, L. S., see Wood, A. K. W.
- Zierler, R. E., see Leotta, D. F.
- Zioupos, P., see Cook, R. B.
- Zwirn, G. and Akselrod, S.: adaptive brightness transfer functions in echocardiography, 649