ULTRASONICS

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DESCRIPTION

Ultrasonics is the only internationally established journal which covers the entire field of ultrasound research and technology and all its many applications. Ultrasonics contains a variety of sections to keep readers fully informed and up-to-date on the whole spectrum of research and development throughout the world. Ultrasonics publishes papers of exceptional quality and of relevance to both academia and industry. Manuscripts in which ultrasonics is a central issue and not simply an incidental tool or minor issue, are welcomed.

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components. **Ultrasonic transducers and systems** - New transducer principles, materials and construction; Calibration; Amplifiers and attenuators; Ultrasonics in control applications; Robotics and automated ultrasonic systems; Oscillation behavior of ultrasonic-based systems.

**Keywords:** ultrasonic propagation, scattering and attenuation, transducers, guided waves, ultrasonic applications, biomedical ultrasound, therapeutic ultrasound, NDE, bubble dynamics, laser ultrasound

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(The physics of ultrasound; physical acoustics; wave propagation; acousto-optics; Brillouin scattering)

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NDT; Ultrasonics; Guided Ultrasonic Waves; Waveguide Sensors; Air Coupled Ultrasound; Materials Characterisation; Process Measurements.

Frank Balle, Faculty of Engineering, Department for Sustainable Systems Engineering, University of Freiburg, Emmy-Noether-Street 2, 79110, Freiburg, Germany  
(High power ultrasonics, industrial applications, ultrasonic process monitoring, ultrasonic joining, ultrasonic cleaning and ultrasonic fatigue)

Younho Cho, School of Mechanical Engineering, Pusan National University, San 30, Jangjeon-Dong, Geumjeong-Gu, 609-735, P(B)usan, The Republic of Korea, Fax: +82 51 514 7640  
Non-destructive Evaluation (NDE); Structural Health Monitoring (SHM); Guided wave ultrasonics; Non-linear ultrasonics; Tomography ultrasonics; Laser ultrasonics.

Zheng Fan, School of Mechanical and Aerospace Engineering, Nanyang Technological University, 50 Nanyang Avenue, 639798, Singapore, Singapore  
Non-Destructive Evaluation (NDE), Structural Health Monitoring (SHM), Ultrasonic modelling, Ultrasonic guided waves.

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Vascular ultrasound; B-mode imaging; Image analysis.
Quentin Grimal, Biomedical Imaging Lab, Université Pierre et Marie Curie, 15, rue de l'école de médecine, 75006, Paris, France
Biomedical ultrasound; Ultrasonics of bone and cartilage; Guided waves in bone; Resonant ultrasonic spectroscopy; Nonlinear acoustics of bone; Measurement of physical properties of bone; Diagnosis and treatment of bone diseases.

Sigrun Hirsekorn, Rehbachstraße 126, Dudweiler, 66125, Saarbrücken, Germany
(Non-linear ultrasonics; acoustic and near-field acoustic microscopy; ultrasonic scattering)

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Non-destructive Evaluation (NDE); Structural Health Monitoring (SHM); Guided ultrasonic wave; Wave propagation modeling; Non-linear ultrasonics.

Peter Lewin, Dept. of Electrical & Computer Engineering, Drexel University, 3141 Chestnut Street, Philadelphia, Pennsylvania, PA 19104, USA, Fax: +1 215 895 4983
(Bio-medical ultrasonics, including bio-medical instrumentation, transducers, systems and signal processing; interaction of ultrasound and biological tissue)

Margaret Lucas, School of Engineering, University of Glasgow, G12 8QQ, Glasgow, UK
Power ultrasonics; Surgical devices; Industrial applications.

Osamu Matsuda, Fac. of Engineering, Materials Chemistry division, Division of Applied Physics, Hokkaido University, N13W8, Kita-ku, 060-8628, Sapporo, Japan, Fax: +81-11-706-6859
Phonon physics; Phononic crystals; Phononic metamaterials; Ultrafast spectroscopy; Picosecond ultrasonics; Phonon imaging.

Jennifer Michaels, School of Electrical and Computer Engineering, Georgia Institute of Technology, 777 Atlantic Drive, Atlanta, Georgia, GA 30332-0250, USA
Ultrasonic signal processing; Ultrasonic imaging; Ultrasonic NDE; Ultrasonic SHM; Ultrasonic wavefield imaging.

Michiel Postema, School of Electrical and Information Engineering, University of Witwatersrand, 1 Jan Smuts Avenue, 2050, Braamfontein, Johannesburg, South Africa
Medical ultrasound; Bubbles; Antibubbles; Droplets; Cavitation; Radiation forces.

Zhongqing Su, Dept. of Mechanical Engineering, The Hong Kong Polytechnic University, Hung Hom, Kowloon, Hong Kong, China, Fax: +852-2365-4703
Structural Health Monitoring (SHM); Wave Propagation; Ultrasonics; Sensors and Sensor Networks; Non-destructive Evaluation (NDE); Smart Materials and Structures; Advanced Composite Materials.

Gail ter Haar, Dept. of Physics, The Royal Marsden NHS Trust, Downs Road, SM2 5PT, Sutton, UK, Fax: +44 208 643 3812
Ultrasonic bio-effects; Safety of medical ultrasound; Therapeutic ultrasound.
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