

PROGRAMME

International Congress on Ultrasonics



5 – 8 September 2011 Gdansk, Poland

Including USWNet 2011



USWNet
Ultrasonic Standing Wave Network

Chronicle



International Congress on Ultrasonics Gdańsk, Poland, September 5–8, 2011

The **International Congress on Ultrasonics'2011** held in Gdańsk, Poland was the third one (after Viena'2007, Austria and Santiago'2009, Chile) over the world meeting of the ultrasonics community, continuing a long tradition of **Ultrasonics International Conferences** (organized every second year since 1963 to 2005), as well as **World Congresses on Ultrasonics** (organized every second year since 1995 to 2005). Last 6 years experience of foundation of ICU congresses have shown a real progress in global integration process of the ultrasonics community and provided an excellent platform for the professional knowledge, exchange among scientists and engineers from academic and industrial centers as well as from other institutions and places of ultrasonics studies and applications.

Ultrasonics as multi-disciplinary field covers a great number of topics from fundamental physical aspects through chemical, biological, medical, material inspections and others branches to many applications. All contributions of topics of the field of ultrasonics were presented during the **ICU'2011** in Gdańsk, and the meeting provided a valuable and unique opportunity for participants to exchange their achievements and experience as well as to enlarge their international contacts on the field.

The **ICU'2011** organized by the University of Gdańsk, Institute of Experimental Physics at the Gdańsk-Oliwa Campus, on 5–8 September, 2011 gathered ultrasonic scientists, specialists, experts and other interested in the subject people from the whole world:

Algeria	–	2	Australia	–	2	Austria	–	3
Belgium	–	5	Brasil	–	9	Belarus	–	2
Canada	–	2	Chile	–	2	China	–	3
Czech	–	2	Denmark	–	7	France	–	32
Germany	–	30	Great Britain	–	18	Hungary	–	1
India	–	3	Iran	–	3	Ireland	–	2
Israel	–	1	Italy	–	5	Japan	–	48
Lithuania	–	10	Netherlands	–	1	Norway	–	2
Poland	–	21	Romania	–	1	Russia	–	25
Singapore	–	2	South Africa	–	2	Spain	–	12
Sweden	–	9	Switzerland	–	8	Taiwan	–	1
Ukraina	–	2	Uruguay	–	1	USA	–	7

The Congress was supported by the ICA (International Commission for Acoustics), Komitet Akustyki PAN (Committee on Acoustics, Polish Academy of Sciences), Polskie Towarzystwo Akustyczne (Polish Acoustical Society).

More than 300 (including accompanying persons and organizing committee) participants presented **304** papers which covered 37 regular sessions of special ultrasonic topics. Six of them were Structured Sessions. They were:

- Acoustics of ordered and disordered granular structures,
- Acousto-optics, being treated as the “**11th School on Acousto-optics and its Applications**”,
- **Ultrasonic Standing Waves – Technics and Applications as “USWnet’2011” meeting**,
- Picosecond Laser ultrasonics,
- Diffraction of ultrasound on periodic structures,
- Scanning laser NDE: Fundamentals and application.

The 8 Keynote Lectures and 7 invited papers reflected current trends and predictions for the future development. The Keynote Lectures were presented by:

1. Professor ANDRZEJ NOWICKI, Poland
(Chair: Professor Lawrence Arthur Crum)
Andrzej NOWICKI, Jerzy LITNIEWSKI, Marcin LEWANDOWSKI, *High Frequency Coded Skin Microsonography.*
2. Professor KENTARO NAKAMURA, Japan
(Chair: Professor Wolfgang Sachse)
Kentaro NAKAMURA, Sadayuki UEHA, *Non-contact actuation of plates, particles and fluid being based on power ultrasonic technology.*
3. Professor LAWRENCE ARTHUR CRUM, USA
(Chair: Professor Andrzej Nowicki)
Lawrence Arthur CRUM, Michael BAILEY, Michael CANNEY, Tatiana KHOKHLOVA, Vera KHOKHLOVA, Julianna SIMON, *The use of High Intensity Focused Ultrasound to induce tissue ablation.*
4. Professor TIMOTHY J. MASON, UK
(Chair: Professor Ewald Benes)
Timothy J. MASON, *Trends in sonochemistry and ultrasonic processing.*
5. Professor TADEUSZ STEPIŃSKI, Sweden
(Chair: Professor Laszlo Adler)
Tadeusz STEPIŃSKI, *Ultrasonic nondestructive inspection of solid objects.*
6. Professor FABIO CARDONE, Italy
(Chair: Professor Antoni Śliwiński)
Fabio CARDONE, *Ultrasonic Piezonuclear Reactions.*
7. Professor VICTOR A. AKULICHEV, Russia
(Chair: Professor Eugeniusz Kozaczka)
Victor A. AKULICHEV, *Cavitation Nuclei and Thresholds of Acoustic Cavitation in Ocean Water.*
8. Professor JÜRIG DUAL, Switzerland
(Chair: Peter A. Lewin)
J. DUAL, S. OBERTI, A. NEILD, J. WANG, T. SCHWARZ, D. MÖLLER, *Particle Manipulation Using Acoustic Radiation Forces in Micromachined Devices.*

The potential of ultrasonics has been also revealed in many individual oral and poster papers, presented in the six parallel sessions among which such alive branches as: ultrasonic motors and actuators, cavitation and sonoluminescence, biomedical ultrasound, medical non-linear acoustics, acoustic microscopy, ultrasonic metrology, ultrasonic sensors and others, were recognized with a great interest.

Abstracts of all papers presented were published in the *Book of Abstracts of ICU'2011* and distributed among the participants. The full texts of papers delivered by the authors have been collected and are being prepared for publication by AIP (American Institute of Physics) and will be available as electronic version at the end of this year.

During the Congress, two meetings of the ICU Board took place. Among the current matters of the ICU policy such problems as renewing the By Laws of ICU, venues for organizing next congresses, supporting young acousticians and other matters were discussed. Also the Board assigned **3** ICU Golden Whistle Awards to: Prof., prof., Wolfgang Sachse, Antoni Śliwiński and Juan A. Gallego-Juárez as well as awarded young acousticians with RWB Stephens Prizes (see the list below).

The awards were handed over during a ceremony before the Congress Banquet to Professor Wolfgang Sachse and to Professor Juan Gallego-Juárez and also to Professor Antoni Śliwiński (awarded in Santiago de Chile, in 2009).

The venue for ICU'2013 will be in Singapore from the **1st to 4th May**.

The Organizing Committees of the Congress are also presented below.

RWB Stephens Prize at ICU 2011

The journal *Ultrasonics* and the Editorial Board would like to extend their warm congratulations to the following winners of the **RWB Stephens Prize**, which was announced at the International Congress on Ultrasonics in Gdańsk, Poland, September 5–8, 2011 (in alphabetical order):

1. Alexander MACHIKHIN
Laboratory of Acousto-optic Spectroscopy, Moscow, Russia
Acousto-optical tunable filters-based 3D spectral imaging.
2. Samuel RAETZ
Bordeaux University, France
Asymmetric thermoelastic generation in semi-transparent materials with an oblique laser incidence.
3. Priscilla ROGERS
Monash University, Australia
Oscillating micro-bubbles for selective particle sorting in acoustic microfluidic devices.
4. Thomas SCHWARZ
ETH Zurich, Switzerland
Ultrasonic resonator for manipulation of bacteria.
5. Timm Joyce TIONG
University of Bath, UK
Sonochemical cleaning efficiencies in dental instruments.

Furthermore the following received RWB Stephens Prize Honourable Mentions (in alphabetical order):

1. Fabian BAUSE
University of Paderborn, Germany
Ultrasonic nondestructive testing of composite materials using disturbed coincidence conditions.
2. Jaroslavas BELOVICKIS
Vilnius University, Lithuania
Acousto-optic interaction of Leaky Surface Acoustic Waves in Y-cut LiTaO₃ crystals.
3. Marc HAUPTMANN
KU Leuven/ATF, Belgium
The importance of control over bubble size distribution in pulsed megasonic cleaning.
4. Jun KONDOH
Shizuoka University, Japan
Development of methanol sensor for direct methanol fuel cells using a shear horizontal surface acoustic wave (SH-SAW).
5. Dmytro Yurievich LIBOV
Kiev National Taras Shevchenko University, Ukraine
Resonant vibrations of Pb(ZrTi)O₃ disk.
6. Michael GEDGE
University of South Hampton, UK
The development of ultrasonic devices for use in an oceanographic flow cytometer.
7. Geoffrey ROGERS
Monash University, Australia
Piezoelectric ultrasonic micro-motor system for minimally invasive surgery – the intellimotor.

ICU Board Members

Adriano Alippi, Italy	Marc Dechamps, France
Arthur G. Every, South Africa	Nick Pace, UK
Bogumil Linde, Poland (ICU President)	Oleg Sapozhnikov, Russia
Ewald Benes, Austria (ICU Secretary)	Oswald Leroy, Belgium
Gail terHaar, UK	Pascal Laugier, France
Hailan Zhang, China	Peter Lewin, USA
Jens E. Wilhelm, Denmark	Sadayuki Ueha, Japan
Juan Gallego-Juarez, Spain	Sigrun Hirsekorn, Germany
Larry Crum, USA	Tim Mason, UK
Leonard Bond, UK	Vitali Goussev, France
Luis Gaete-Garretton, Chile (ICU Chairman)	Wolfgang Sachse, USA

ICU YSAC Members

Nataliya Polikarpova, Russia	Robin Cleveland, USA
Nico Declercq, Belgium	Stefan Radel, Austria

Scientific Committee

Antoni ŚLIWIŃSKI, Poland, President of the Scientific Committee	
Laszlo Adler, USA	Peter Lewin, USA
Adriano Alippi, Italy	Bogumil Linde, Poland
Walter Arnold, Germany	Jian-yu Lu, USA
Ewald Benes, Austria	Mikołaj Łabowski, Poland
Leif Bjørnø, Denmark	Tim Mason, UK
Larry Crum, USA	Andreas Mandelis, Canada
Eugeniusz Danicki, Poland	Andrzej Nowicki, Poland
Joris Degreck, Belgium	William D. O'Brien Jr, USA
Marc Deschamps, France	Aleksander Opilski, Poland
Stefan Ernst, Poland	Nick Pace, UK
Arthur G. Every, South Africa	Tadeusz Pustelny, Poland
Luis Gaete-Garretton, Chile	Stefan Radel, Austria
Juan Gallego-Juarez, Spain	Enrique Riera, Spain
Grażyna Grelowska, Poland	Wolfgang Sachse, USA
Tadeusz Gudra, Poland	Roman Salamon, Poland
Vitalyi Gusev, France	Oleg Sapozhnikov, Russia
Gail ter Haar, UK	Andrzej Stepnowski, Poland
Sigrun Hirsekorn, Germany	Tadeusz Stepinski, Sweden
Tomasz Hornowski, Poland	Bernhard R. Tittmann, US
David A. Hutchins, UK	Chen S. Tsai, Taiwan
Rymantas Kazys, Lithuania	Sadayuki Ueha, Japan
Eugeniusz Kozaczka, Poland	Marian Urbańczyk, Poland
Zygmunt Klusek, Poland	Jens E. Wilhelm, Denmark
Pierre Khuri-Yacub, USA	Brian Stephen Wong, Singapore
Pascal Laugier, France	Vitaly B. Voloshinov, Russia
Werner Lauterborn, Germany	Hailan Zhang, China.
Oswald Leroy, Belgium	

Organizing Committee

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Piotr Kwiek – vice-President	Magdalena Mudlaff (student)
Anna Markiewicz – Secretary	Pamela Struś (student)
Nikodem Ponikwicki – vice-Secretary	Anna de Rosier (student)
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Ksenia Piątkowska – Member	Aleksandra Wisz (student)
Paulina Borysewicz – Member	Paulina Warczyńska (student)

The Organizers would like to express their thanks to all who helped in accomplishing the Congress: International Commission for Acoustics, Polish Acoustical Society,

Committee on Acoustics of the Polish Academy of Sciences for their patronage and cooperation, University of Gdańsk for its hospitality and assistance, Gdańsk Convention Bureau for their voluntary service, and ATA Travel Agent for its backing.

Cordial thanks are expressed to all participants and their accompanying persons, particularly to Authors of presentations, Chairmen of Sessions, the members of Scientific Committee as well as of the Organizing Committee and to other contributors active for making a success of the Congress.

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Antoni Śliwiński, Bogumił Linde

MONDAY – 5th of September

MON 9 ⁰⁰ - 10 ¹⁵	Opening Ceremony Faculty of Law and Administration, Auditory 1071					
MON 10 ¹⁵ - 11 ⁰⁰	Keynote Lecture: Professor Andrzej Nowicki (Chair: Professor Lawrence Arthur Crum) Andrzej Nowicki, Jerzy Litniewski, Marcin Lewandowski <i>High Frequency Coded Skin Microsonography</i> Faculty of Law and Administration, Room 1071					
MON 11 ⁰⁰ - 11 ³⁰	coffee & tea break					
room/time	Physical Acoustics Chairs: L. Adler, L. Kulakova Faculty of Math. Phys. Auditory No 3	Adaptive Imaging and Focusing Chairs: J.C. Adamowski, L. Gómez-Ullate Faculty of Social Sciences Room C111	Transducer Technology Chairs: K. Nicolaides, F. Buiochi Faculty of Social Sciences Room C112	Acousto-optics (11th AO School) Chair: V. Molchanov Faculty of Math. Phys. Auditory No 1	Acoustics of ordered and disordered granular structures Chairs: V. Gusev, S. Job, V. Tournat Faculty of Social Sciences Room C108	Ultrasonic Standing Waves - Techniques and Applications as the USWnet 2011 Chair: S. Radel Faculty of Math. Phys. Auditory No 2
MON 11 ³⁰ - 11 ⁵⁰	Ryuichi Tarumi, Yoji Shibutani <i>Acoustic resonance of nonlinear elastic bar and its application to RUS</i>	Nicolás Pérez, Marcelo Matuda, Carlos Negreira, Julio Cezar Adamowski <i>Determination of the minimum length impulse response for time reversal focalization in acoustic cavities</i>	Kyriacos Nicolaides, Louise Nortman, Johannes Van Jaarsveld <i>Investigation of various shading (window) functions by printing the shape on underwater transmitting and receiving transducers and arrays</i>	Invited Lecture Vitaly B. Voloshinov <i>Phase and group velocities of bulk optic and acoustic waves in crystals, periodic structures and metamaterials</i>	Invited lecture David Linton Johnson, John J. Valenza <i>The dynamic effective mass of granular media and their effects on the vibrational</i>	Invited lecture Henrik Bruus, Mikkel Settnes <i>Acoustophoresis of suspended spherical microparticles: the acoustic radiation force</i>

MON 11 ⁵⁰ - 12 ¹⁰	Yoichi Kadota, Takeshi Morita <i>Fatigue and retention properties of the shape memory piezoelectric actuator</i>	Carlos Julián Martín-Arguedas, Oscar Martínez-Graullera, David Romero-Laorden, Manuel Pérez-López, Luis Gómez-Ullate <i>Improvement of synthetic aperture techniques by means of the coarray analysis</i>	Shinichi Takeuchi, Mutsuo Ishikawa, Norimichi Kawashima, Takeyoshi Uchida, Masahiro Yoshioka, Tsuneo Kikuchi, Nagaya Okada, Minoru Kuribayashi Kurosawa <i>Development of tough anti cavitation hydrophone by deposition of hydrothermally synthesized lead zirconate titanate poly-crystalline film on reverse surface of titanium front layer</i>		<i>response of a resonant structure; Theory and experiment</i>	<i>with viscous corrections</i>
MON 12 ¹⁰ - 12 ³⁰	Jérôme Dubois, Christophe Aristégui, O. Poncelet <i>Quasi-static effective properties: effect of the back and forth interactions between a pair of cylinders</i>	Oscar Martínez-Graullera, David Romero, Carlos J. Martín, Alberto Ibañez, Luis G. Ullate <i>A new beamforming process based on the phase dispersion analysis</i>		Nataliya Polikarpova, Vitaly Voloshinov <i>Propagation and reflection of acoustic waves in strongly anisotropic crystals in the general case of inclined incidence</i>	Francisco Santibanez, Romina Munoz, Aude Caussarieu, Stéphane Job, Francisco Melo <i>Nonlinear mechanisms versus viscoelastic behaviors on wave propagation in ordered granular media</i>	Rune Barnkob, Per Augustsson, Steven T. Wereley, Henrik Bruus, Thomas Laurell <i>Microchannel acoustophoresis: continuous flow focusing efficiency compared to full-chip high-resolution micro-PIV measurements of the acoustic radiation force</i>
MON 12 ³⁰ - 12 ⁵⁰	Nicolae Cretu, Ioan-Mihail Pop, Ioan-Calin Rosca <i>Eigenvalues and eigenvectors of the transfer matrix</i>	Martin Hansen Skjelvareid, Tomas Olofsson, Yngve Birkelund <i>Three-dimensional ultrasonic imaging in multilayered media</i>		Arseniy Trushin <i>Acousto-optic interaction in TeO₂ and LiNbO₃ devices with surface generation of bulk acoustic waves</i>	Jean-Baptiste Legland, Vincent Tournat, Vitaly E. Gusev <i>Nonlinear acoustic probing of the memory effects in the elastic behaviour of noncohesive granular media along a compaction process</i>	Peter Glynne-Jones, Puja Mishra, Dyan Ankrett, Rosie Boltryk, Mathis Riehle, Martyn Hill <i>Practical design of devices for cell sorting and characterisation</i>

MON 12 ⁵⁰ - 13 ¹⁰	Laszlo Adler, William T. Yost, John H. Cantrell <i>Subharmonics, chaos and beyond</i>	Carlos Fritsch, Jorge F. Cruza, Jorge Camacho, Jose D. Brizuela, José Miguel Moreno <i>A new technique for fast dynamic focusing law computing</i>		Nataliya Polikarpova, Polina Malneva <i>Polarization of Acoustic Waves in crystals with strong elastic anisotropy</i>	Vladimir Yurievich Zaitsev, Lev Aleksandrovich Matveev <i>Giant strain-sensitivity of local acoustic dissipation near inner wavy contacts in dry and fluid-saturated cracks</i>	Puja Mishra, Peter Glynne-Jones, Rosie Boltryk, Martyn Hill <i>Efficient finite element modelling of acoustic radiation forces on inhomogeneous compressible particles</i>
MON 13 ¹⁰ - 13 ³⁰	Mattieu Ruppin, Stefan Catheline, Roux Philippe <i>One channel spacio-temporal inversion of random waves in reverberant cavities</i>			Nataliya Polikarpova, Evgeny Djakonov, Vitaly Voloshinov <i>Acousto-optic investigation of acoustic propagation of waves in anisotropic medium</i>	David Soto, Rosa Ana Salas, Tomas Gomez Alvarez-Arenas <i>Air-coupled ultrasonic spectroscopy applied to the study of the properties of paper produced from mineral powder (mineral paper)</i>	Daniele Foresti, Majid Nabavi, Dimos Poulikakos <i>Time-averaged acoustic forces acting on a rigid sphere within a wide range of radii in an axisymmetric levitator</i>
MON 13 ³⁰ - 15 ⁰⁰	Lunch Faculty of Social Sciences, restaurants & B103					
MON 15 ⁰⁰ - 15 ³⁵	Keynote Lecture: Professor Kentaro Nakamura (Chair: Professor Wolfgang Sachse) Sadayuki Ueha, Kentaro Nakamura <i>Non-contact actuation of plates, particles and fluid being based on power ultrasonic technology</i> Social Sciences Faculty, room S205					
	Physical Acoustics Chairs: L. Adler, L. Kulakova	Adaptive Imaging and Focusing Chairs: J.C. Adamowski, L. Gómez-Ullate	Ultrasonic Motors and Actuators Chairs: K. Nakamura, A. Iula	Acousto-optics (11th AO School) Chair: A. Perennou	Acoustics of ordered and disordered granular structures Chairs: V. Gusev, S. Job, V. Tournat	Ultrasonic Standing Waves - Techniques and Applications as the USWnet 2011 Chair: J. J. Hawkes

room/time	Faculty of Math. Phys. Auditory No 3	Faculty of Social Sciences Room C111	Faculty of Social Sciences Room C112	Faculty of Math. Phys. Auditory No 1	Faculty of Social Sciences Room C108	Faculty of Math. Phys. Auditory No 2
MON 16 ⁰⁰ - 16 ²⁰	Venkatramanan Kanan, G. Padmanabhan, V. Arumugam <i>A study on the molecular interaction of PPG 3000 and its blend using ultrasonic technique</i>	Jorge F. Cruza, Jorge Camacho, Jose Brizuela, Jose M. Moreno, Carlos Fritsch <i>Modular architecture for ultrasound beamforming with FPGAs</i>	Daisuke Koyama, Ryoichi Isago, Kentaro Nakamura <i>High-speed focus scanning at 1 kHz by a variable-focus liquid lens using acoustic radiation force</i>	Invited lecture Vladimir Ya. Molchanov, Konstantin B. Yushkov <i>Acousto-optics for femtosecond laser systems</i>	Invited lecture Brian P. Lawney, V. Magnanimo, S. Luding <i>A particles view on sound propagation</i>	Andreas Lenshof, Brian Warner, Thomas Laurell <i>Improving flow cytometric assay performance using in-line acoustophoretic washing of lysed blood samples</i>
MON 16 ²⁰ - 16 ⁴⁰	Hideyuki Nomura, Claes M. Hedberg, Tomoo Kamakura <i>Numerical simulation of length limited parametric sound beam</i>	Medical Parametric Imaging Chair: E. Skrodzka Guillermo Rus <i>Dispersive model selection and reconstruction for tissue culture ultrasonic monitoring</i>	Antonio Iula, Giosuè Caliano, Nicola Lamberti <i>Fluid film force control in lubricated journal bearings by means of a travelling wave generated with a piezoelectric actuators system</i>			Cosima Koch, Gerhard Fritscher, Lukas Strobl, Stefan Radel, Bernhard Lendl <i>Ultrasonic enhanced mid-infrared spectroscopy for in-line monitoring of cell cultures</i>
MON 16 ⁴⁰ - 17 ⁰⁰	Andrei A. Teplykh, Boris D. Zaitsev, Iren E. Kusnetsova <i>Acoustic waves of zero order in piezoelectric cylinders and tubes bordered with non-conducting viscous liquid</i>		Geoffrey Rogers <i>Piezoelectric ultrasonic micro-motor system for minimally invasive surgery - the intellimotor</i>	Konstantin B. Yushkov, Vladimir Ya. Molchanov <i>Coupled-wave equations of Bragg diffraction for wave packets in dispersive media</i>	Ludovic Bodet, Amine Dhemaied, Régis Mourgues, Vincent Tournat, Fayçal Rejiba <i>Laser-Doppler acoustic probing of granular media with in-depth property gradient and varying pore pressures</i>	Michael Gedge, Lawrence Voon, Peter Glynne-Jones, Martyn Hill <i>The use of ultrasonic waves to minimise biofouling in oceanographic microsensors</i>

MON 17 ⁰⁰ - 17 ²⁰	coffee & tea break					
room/time	Physical Acoustics Chairs: L. Adler, L. Kulakova Faculty of Math. Phys. Auditory No 3	Acoustics Sensors Chairs: E. Benes, J. Kondoch Faculty of Social Sciences Room C111	Ultrasonic Motors and Actuators Chairs: K. Nakamura, A. Iula Faculty of Social Sciences Room C112	Acousto-optics (11th AO School) Chair: V. Voloshinov Faculty of Math. Phys. Auditory No 1	Acoustics of ordered and disordered granular structures Chairs: V. Gusev, S. Job, V. Tournat Faculty of Social Sciences Room C108	Ultrasonic Standing Waves - Techniques and Applications as the USWnet 2011 Chairs: M. Hill and R. Botryk Faculty of Math. Phys. Auditory No 2
MON 17 ²⁰ - 17 ⁴⁰	Tomas Gomez Alvarez-Arenas, Pavel Yu. Apel, Oleg Orelovitch <i>Ultrasound propagation in air-filled cylindrical pores under pressurized conditions</i>	Martin Schmitt, Sabrina Tietze, Wei Liang, Gerhard Lindner <i>Measurement of the emission of Lamb waves by a PVDF membrane hydrophone</i>	Dmitry Stepanenko, Vladimir Minchenya, Roustam Asimov, Klaus Zimmermann <i>Possibility of application of small-size robots with vibratory piezoelectric actuators for inspection of physical state of surfaces</i>	Claudio Kitano, João Marcos Salvi Sakamoto, Ricardo Tokio Higuti, Gefeson Mendes Pacheco <i>Heterodyne interferometry applied to the characterization of acousto-electro-optic light modulators</i>	Stéphane Job, Anatoliy Strybulevych, John H. Page <i>Ultrasonic wave transport in weakly confined granular media in the intermediate frequency regime</i>	Linda Johansson <i>Acoustic particle manipulation in a PDMS channel excited by a surface acoustic wave - principle of operation</i>
MON 17 ⁴⁰ - 18 ⁰⁰	Liudmila Kulakova <i>Change of emission polarization in InGaAsP/InP nanodimensional laser heterostructures under ultrasonic strain</i>	Tobias Merkel, Hans G. Lühmann, Tom Ritter, Jan Lühmann <i>Using ultrasonic waves to receive audio sound</i>	Munesuke Suzuki, Hiroshi Hosaka, Takeshi Morita <i>Resonant type SIDM actuator with two Langevin transducers</i>	Erik Blomme, Piotr Kwiek, Bogumil Linde, Vitaly Voloshinov <i>Acousto-optic laser chopper based on light diffraction by hypersonic waves in lithium niobate single crystal</i>	Anne-Christine Hladky-Hennion, Christian Granger, Bertrand Dubus, Jérôme Vasseur, Michel de Billy <i>Propagation of elastic waves in one-dimensional periodic waveguides with symmetric stubs</i>	Jeremy J. Hawkes, Nicholas J. Goddard, Peter R. Fielden, Stephan Mohr, Behnam Bastani, Martin McDonnell <i>Thin plastic walls and flexural waves for attracting cells</i>

MON 18 ⁰⁰ - 18 ²⁰	Alexandr Karabutov (Jr.), Yuriy Kosevich, Oleg Sapozhnikov <i>Acoustical analog of Bloch oscillation</i>	Jun Kondoh, Saburo Endo, Naomi Sawada, Katsuhiko Sato <i>Development of methanol sensor for direct methanol fuel cells using a shear horizontal surface acoustic wave (SH-SAW)</i>	Masaya Takasaki, Michihiro Suzaki, Takeshi Mizuno <i>Sheet-like ultrasonic transducer for tactile display application</i>	L. A. Kulakova, A. P. Danilov, B. T. Meleh, S. A. Grudinkin, <i>The efficient acoustooptic materials for near and middle IR-region on basis of Ge-Te-Se and Ge-Te-Se-S – alloys</i>	Jean-Louis Thirot, Bruno Kergosien, Yves Le Gonidec, <i>Acoustic emissions in multiscale granular structures under gravitational destabilization</i>	Thomas Schwarz, Jürg Dual, Wolf-Dietrich Hardt <i>Ultrasonic resonator for manipulation of bacteria</i>
MON 18 ²⁰ - 18 ⁴⁰	Vadim Moiseevich Levin, Alexandr A. Goryunov, Yulia S. Petronyuk, Konstantin V. Zakutailov <i>Principles of local elastic measurements. Application of focused impulse ultrasound for measuring with micron and submicron resolution</i>	Jichuan Xiong, Christ Glorieux <i>Imaging of acoustic nonlinearity by photorefractive interferometry</i>	Raimundas Lucinskis, Dalius Mazeika, Tobias Hemsel, Ramutis Bansevicius <i>Multi-DOF cylindrical piezoelectric actuator with radial polarization</i>	Ken Yamamoto, Kana Izuno, Masafumi Aoyanagi <i>Sensitive tint visualization of resonance patterns in a glass plate</i>	Aurelien Merkel, Vincent Tournat, Vitaliy Gusev <i>Elastic wave propagation within three-dimensional noncubusive hexagonal close-packed granular crystal: rotational modes, spatial inhomogeneity and nonlinear effects</i>	Mauricio Hoyos, Despina Bazou, Angelica Castro <i>Novel approach to generate cell aggregates by pulsed ultrasounds</i>

room/time	Physical Acoustics Chairs: L. Adler, L. Kulakova Faculty of Math. Phys. Auditory No 3				Acoustics of ordered and disordered granular structures Chairs: V. Gusev, S. Job, V. Tournat Faculty of Social Sciences Room C108	Ultrasonic Standing Waves - Techniques and Applications as the USWnet 2011 Chairs: M.Hill and R. Botryk Faculty of Math. Phys. Auditory No 2
MON 18 ⁴⁰ - 19 ⁰⁰	Manish Pratap Singh, Rajendra Kumar Singh <i>Correlations and effect of temperature on ultrasonic, volumetric, transport and surface properties of ionic liquids [BMIM][PF₆], [BMIM][O₆SO₄] and [EMIM][MeSO₃]</i>				Vladimir Yu. Zaitsev, Vincent Tournat, Vitaly Gusev <i>Application of nonlinear acoustics to study relaxation processes in granular materials</i>	Aba Prieve, Lev Ostrovsky, Victor Ponomarev, Yechezkel Barenholz <i>Cylindrical ultrasonic forces for rapid detection of bacteria in water on the single-cell level</i>
MON 19 ⁰⁰ - 19 ²⁰	Sanjeev Kumar Shrivastava <i>Study of ultrasonic attenuation in magnesium oxide at elevated temperatures</i>					Luz Angelica Castro Camacho, Anna García-Sabaté, Despina Bazou, Mauricio Hoyos <i>Acoustic interaction of particle during the aggregation process in an ultrasonic resonator</i>
MON 19 ³⁰	Welcome Party					Social Sciences Faculty, hall

TUESDAY – 6th of September

TUE 9 ⁰⁰ - 9 ⁵⁵	<p>Keynote Lecture: Professor Lawrence Arthur Crum (Chair: Professor Andrzej Nowicki) Lawrence Arthur Crum, Michael Bailey, Michael Canney, Tatiana Khokhlova, Vera Khokhlova, Julianna Simon <i>The use of High Intensity Focused Ultrasound to induce tissue ablation</i></p> <p>Social Sciences Faculty, Room S205</p>					
room/time	<p>Physical Acoustics Chairs: L. Adler, L. Kulakova</p> <p>Faculty of Math. Phys. Auditory No 3</p>	<p>Acoustic Sensors Chairs: E. Benes, J. Kondoch</p> <p>Faculty of Social Sciences Room C111</p>	<p>Medical Non-Linear Acoustics Chair: K.V. Jenderka</p> <p>Faculty of Social Sciences Room C112</p>	<p>Acousto-optics (11th AO School) Chairs: G.F. Pacheco J.C. Kastelik</p> <p>Faculty of Math. Phys. Auditory No 1</p>	<p>Diffraction of Ultrasound on Periodic Structure Chair: N. Declercq</p> <p>Faculty of Social Sciences Room C108</p>	<p>Ultrasonic Standing Waves - Techniques and Applications as the USWnet 2011 Chair: J.Dual</p> <p>Faculty of Math. Phys. Auditory No 2</p>
TUE 10 ⁰⁰ - 10 ²⁰	<p>Anna Perelomova, Weronika Hanna Pelc-Garska <i>Interaction between acoustic and non-acoustic mode in a bubbly liquid</i></p>	<p>Toshihiro Tsuji, Hiroki Nagai, Kazuya Komine, Aya Yoshino, Takamitsu Iwaya, Toshihiro Sakamoto, Shingo Akao, Takayuki Yanagisawa, Tsuneo Ohgi, Noritaka Nakaso, Yoshikazu Ohara, Kazushi Yamanaka <i>Abnormally sensitive surface of langasite to polar volatile organic compounds and its application to surface acoustic wave sensor</i></p>	<p>Sylvain Hauptert, Sandra Guerard, Paul A. Johnson, David Mitton, Pascal Laugier <i>Nonlinear ultrasound monitoring of fatigue micro-damage accumulation in cortical bone</i></p>	<p>Invited Lecture</p> <p>Jean-Claude Kastelik <i>Polarization insensitive acousto-optical tunable notch filter</i></p>	<p>Invited Lecture</p> <p>Bertrand Dubus, Charles Cröenne, Jérôme Vasseur, Alain Tinel, Bruno Morvan, Anne-Christine Hladky-Hennion <i>Recent advances in the development of elastic superlenses made of phononic crystals</i></p>	<p>Invited Lecture</p> <p>Björn Hammarström, Thomas Laurell, Johan Nilsson <i>Acoustic nanoparticle trapping using seed particles</i></p>

TUE 10 ²⁰ - 10 ⁴⁰	Yuji Wada, Daisuke Koyama, Kentaro Nakamura <i>Direct calculation of acoustic streaming including the boundary layer phenomena in an ultrasonic air pump</i>	Andreas Schröder, Bernd Henning <i>Model based separation of transmitted and received signal for single transducer distance measurement applications</i>	Jacques Rivière, T. J. Ulrich, Pierre-Yves Le Bas, Sylvain Hauptert, Pascal Laugier, Paul Johnson <i>The time reversed elastic nonlinearity diagnostic applied to osseointegration monitoring through two mock models</i>			
TUE 10 ⁴⁰ - 11 ⁰⁰		Emanuele Baravelli, Luca De Marchi <i>Experimental demonstration of spiral frequency-steerable acoustic sensors</i>	Petr Yuldashev, Vera Khokhlova <i>Nonlinear modeling of 3D ultrasound fields of HIFU arrays</i>	Hadeel Issa, Veronique Quintard, André Perennou <i>Characterisation of the wavelength dependence of a multi-transducer acousto-optic switch</i>	Rayisa P. Moiseyenko, Nico F. Declercq, Vincent Laude <i>Numerical investigation of diffraction of acoustic waves by phononic crystals</i>	Almudena Cabañas Sorando <i>Patterns of particle aggregation and streaming in resonating fluids</i>
TUE 11 ⁰⁰ - 11 ²⁰	coffee & tea break					
room/time	Physical Acoustics Chairs: L. Adler, L. Kulakova Faculty of Math. Phys. Auditory No 3	Acoustic Sensors Chairs: E. Benes, J. Kondoch Faculty of Social Sciences Room C111	Medical Non-Linear Acoustics Chair: K.V. Jenderka Faculty of Social Sciences Room C112	Sonochemistry Chair: L. Paniwnyk Faculty of Math. Phys. Auditory No 1	Diffraction of Ultrasound on Periodic Structure Chair: N. Declercq Faculty of Social Sciences Room C108	Ultrasonic Standing Waves - Techniques and Applications as the USWnet 2011 Chairs: Th. Laurell and H. Bruus Faculty of Math. Phys. Auditory No 2
TUE 11 ²⁰ - 11 ⁴⁰	Omprakash Pandurang Chimankar, Yogiraj R. Tarone <i>Study of acoustic wave back</i>	Hirotsugu Ogi, Fumihito Kato, Taiji Yanagida,	Mikhail Averiyarov, Maria Karzova, Oleg Sapozhnikov,	Larysa Paniwnyk, Rhianna Briars <i>Examining the extraction of</i>	Valentin Leroy <i>Bragg and hybridization gaps in bubble phononic crystals</i>	Mathias Ohlin, Athanasia Evangelos Christakou, Thomas Frisk,

	<i>scattering in magnetic nanomaterial suspension</i>	Masahiko Hirao <i>Resonant acoustic microbalance with naked embedded quartz (RAMNE-Q) for biosensors</i>	Vera Khokhlova <i>Physical mechanisms of acoustic saturation in focused beams of high amplitude periodic waves and single pulses</i>	<i>artemisinin from Artemisia annua using ultrasound</i>		Björn Önfelt, Martin Wiklund <i>Dependence of acoustic streaming on well geometry in a multi-well micro-plate</i>
TUE 11 ⁴⁰ - 12 ⁰⁰	Walter Arnold, H. Wagner, B. Zhang, D. Bedorf, S. Küchemann, M. Schwabe, S. Samwer <i>Application of atomic force acoustic microscopy for studying elastic and anelastic properties of metallic glasses</i>	Ewald Benes, Helmut Nowotny, Stefan Radel, Martin Gröshl <i>Immersed piezoelectric thickness shear resonator for the online measurement of the viscosity of liquids</i>		Madeleine Bussemaker, Dongke Zhang <i>Opposing effects of flow speed on radical yield in a sono-chemical reactor at high frequencies</i>	Jingfei Liu, Nico Declercq <i>Air-coupled ultrasonic investigation of periodic structure composed of stacked cylindrical rods</i>	Dirk Möller, Timo Hilsdorf, Jingtao Wang, Jürg Dual <i>Acoustic streaming used to move particles in a circular flow in a plastic chamber</i>

room/time	Physical Acoustics Chairs: L. Adler, L. Kulakova Faculty of Math. Phys. Auditory No 3	Elastography and Vibro Acoustics Chair: O. Sapozhnikov Faculty of Social Sciences Room C111	Nonlinear Elastic Wavespectroscopy in NDT Chairs: S. Hirsekorn, K. Yamanaka Faculty of Social Sciences Room C112	Sonochemistry Chair: L. Paniwnyk Faculty of Math. Phys. Auditory No 1	Underwater Ultrasonics Chair: Z. Klusek Faculty of Social Sciences Room C108	Ultrasonic Standing Waves - Techniques and Applications as the USWnet 2011 Chairs: Th. Laurell and H. Bruus Faculty of Math. Phys. Auditory No 2
TUE 12 ⁰⁰ - 12 ²⁰	Rachel S. Edwards, R. Perry, D. Cleanthous, D. J. Backhouse, I. J. Moore, A. R. Clough <i>Measuring elastic constants using non-contact ultrasonic techniques</i>	Nicolás Benech, Stefan Catheline, Javier Brum, Carlos Negreira <i>Viscoelastic parameter for monitoring heat-induced changes in soft tissues: A feasibility study</i>	Lionel Haumesser, Denis Parenthoine, Pascal Tran-Huu-Hue, Jérôme Fortineau, François Vander Meulen, Marc Lethiecq <i>A physical device for the measurement of weak harmonic distortions radiated from a piezoelectric rod</i>	Daisuke Kobayashi, Atsushi Suzuki, Tomoki Takahashi, Hideyuki Matsumoto, Chiaki Kuroda, Katsuto Otake, Atsushi Shono <i>Effect of ultrasonic frequency on degradation of methylene blue in the presence of particle</i>	Eugeniusz Kozaczka, Grażyna Grelowska, Sławomir Kozaczka <i>Same characteristics of underwater noise generated by ships</i>	Ida Iranmanesh, Rune Barnkob, Henrik Bruus, Martin Wiklund <i>Analysis of a tunable-angle wedge transducer for improved microchip acoustophoresis</i>
TUE 12 ²⁰ - 12 ⁴⁰	Vladimir A. Gusev, R. Zhostkov <i>Intensive acoustic wave propagating in the stratified atmosphere and acoustical influence on the atmosphere state</i>	Timofey B. Krit, Valery G. Andreev, Oleg A. Sapozhnikov <i>Shear waves in a cubic nonlinear resonator</i>	Sigrun Hirsekorn, Ute Rabe, Thomas Helfen, Kai Geng, Christian Boller <i>Non-destructive testing and characterisation of carbon fibre reinforced composites by linear and non-linear ultrasonic methods</i>	Khuyen Viet Bao Tran, Shinobu Koda, Takahide Kimura, Takashi Kondo <i>Acoustically induced mechanical effects quantification by polymer degradation in aqueous and organic solutions</i>	Eugeniusz Kozaczka, Grażyna Grelowska <i>Searching of the buried objects in the sea bottom by means of nonlinear acoustic methods</i>	Xiaoyu Xi, Frederic Bert Cegla <i>Study of bubble behaviour near a solid surface in an acoustic standing wave field</i>

TUE 12 ⁴⁰ - 13 ⁰⁰	Henryk Lasota <i>Time-domain description of point-source acoustic wavefields as a useful approach in ultrasonic techniques</i>	Soumaya Latour, Thomas Gallot, Stefan Catheline, François Renard, Michel Campillo, Christophe Voisin, Eric Larose, Benjamin Vial, Adeline Richard <i>Sliding dynamic studies by use of elastography</i>	Kazushi Yamanaka, Yoshikazu Ohara, Miyuki Oguma, Yohei Shintaku <i>Two dimensional model for subharmonic generation at closed cracks</i>	Timm Joyce Tiong, Simon C. Lea, A. Damien Walmsley, Gareth J. Price <i>Sonochemical cleaning efficiencies in dental instruments</i>	Zygmunt Klusek, Piotr Majewski, Lukasz Hoppe <i>Frequency and angular dependence of bi-static bottom scattering in shallow areas of the baltic sea</i>	Roy Green, Peter Glynne-Jones, Rosie Boltryk, Dyan Ankrett, Paul Townsend, Martyn Hill <i>Controlling non-inertial cavitation microstreaming for applications in biomedical research</i>
TUE 13 ⁰⁰ - 13 ²⁰			Shiro Biwa, Kazuyoshi Nagae, Claude Inserra, Eiji Matsumoto <i>Evaluation of nonlinear low-frequency components generated by amplitude-modulated waves in a carbon/ carbon composite</i>	Gaku Isobe, Ryo Ageba, Takafumi Maeda, Peter Bornmann, Tobias Hemsel, Takeshi Morita <i>Synthesis of piezoelectric materials by ultrasonic assisted hydrothermal method</i>	Bulk and Surface Acoustic Waves Chairs: K. Hashimoto, M. Pluta Bogdan Piwakowski, Pawel Safinowski, Mariusz Kaczmarek <i>Automated NDT by non-contact surface waves</i>	Priscilla Rogers, Lin Xu, Adrian Neild <i>Oscillating microbubbles for selective particle sorting in acoustic microfluidic devices</i>
TUE 13 ³⁰ - 15 ⁰⁰	Lunch Social Sciences Faculty, restaurants & B103					

TUE 15 ⁰⁰ - 15 ⁵⁵	Keynote Lecture: Professor Timothy J. Mason (Chair: Professor Ewald Benes) Timothy J. Mason <i>Trends in sonochemistry and ultrasonic processing</i> Social Sciences Faculty, Room S205					
room/time	General papers Chairs: L.G. Garretton, B.C. Khoo Faculty of Math. Phys. Auditory No 3	NDT: Modeling and Simulation Chairs: A. Every, R. Kažys Faculty of Social Sciences Room C111	Therapeutic Ultrasound Chairs: M. Postema, G.P. Gavin Faculty of Social Sciences Room C112	Picosecond Laser Ultrasonics Chairs: V. Gusev, P. Ruello, O.B. Wright Faculty of Math. Phys. Auditory No 1	Bulk and Surface Acoustic Waves Chairs: K. Hashimoto, M. Pluta Faculty of Social Sciences Room C108	Ultrasonic Standing Waves - Techniques and Applications as the USWnet 2011 Chair: M. Wiklund Faculty of Math. Phys. Auditory No 2
TUE 16 ⁰⁰ - 16 ²⁰	Pahala Gedara Jayathilake, Gang Liu, Boo Cheong Khoo <i>Acoustic wave scattering by two dimensional inclusion with irregular shape in an ideal fluid</i>	Arthur Every <i>Analysis of ringing and noise in FE calculated pulse profiles</i>	Volker Wilkens, Olga Bessonova, Sven Sonntag <i>Measurement of high intensity therapeutic ultrasound (HITU) using broadband membrane hydrophones</i>	Invited lecture Hirotsugu Ogi <i>Emerging applications of picosecond ultrasonics: From nanomechanics to biosensors</i>	Ken-ya Hashimoto, Tatsuya Omori, Chang-Jun Ahn <i>Modification of scalar potential theory for surface acoustic wave devices to take slowness asymmetry into account</i>	Philipp Hahn, Jürg Dual <i>A novel device allowing for movement and trapping of particles within loop-shaped channels</i>
TUE 16 ²⁰ - 16 ⁴⁰	Tsuneyoshi Sugimoto <i>Water distribution measurement in soil using sound vibration</i>	Rymantas Kažys, Egidijus Žukauskas, Liudas Mažcika, Elena Jasiūnienė <i>Propagation of longitudinal and shear waves in structures with a temperature gradient</i>	Olga Bessonova, Volker Wilkens <i>Numerical modeling as an effective method for the characterization of HITU devices</i>		Michio Kadota, Tetsuya Kimura, Yasuyuki Ida <i>Measured Characteristics of Band Pass Type Tunable Filter using SAW Resonators and Various Capacitors</i>	Charles Courtney, Chun-Kiat Ong, Bruce W. Drinkwater, Paul D. Wilcox, Alon Grinenko <i>Two-dimensional manipulation of microparticles using phase-controllable ultrasonic standing waves</i>

TUE 16 ⁴⁰ - 17 ⁰⁰	Sebastian Baer, Marco A. B. Andrade, Cemal Esen, Julio Cezar Adamowski, Gustav Schweiger, Andreas Ostendorf <i>Development of a single-axis ultrasonic levitator and the study of the radial particle oscillations</i>		Dmitry Stepanenko, Vladimir Minchenya, Alexandra Bobrovskaya, Nina Krutilina <i>Theoretical and experimental studies of combined therapy of tumours with application of ultrasound</i>	Charfeddine Mechri, Pascal Ruello, Vitali Goussev, Shlomo Berger, Roman Yasinov <i>Confined acoustic modes and elasticity of tubular nanoporous alumina film probed by picosecond acoustics</i>	Mateusz Grzeszkowski, Jens Prager <i>Determination and visualization of the wave propagation on solid surfaces using a single head laser vibrometer</i>	Maria Nordin, Thomas Laurell <i>High enrichment of micrometer-sized particles in an acousto-phoresis microsystem</i>
TUE 17 ⁰⁰ - 17 ²⁰	coffee & tea break					
room/time	General Papers Chairs: L.G. Garretton, B.C. Khoo Faculty of Math. Phys. Auditory No 3	NDT: Modeling and Simulation Chairs: A. Every, R. Kažys Faculty of Social Sciences Room C111	Therapeutic Ultrasound Chairs: M. Postema, G.P. Gavin Faculty of Social Sciences Room C112	Picosecond Laser Ultrasonics Chairs: V. Gusev, P. Ruello, O.B. Wright Faculty of Math. Phys. Auditory No 1	Bulk and Surface Acoustic Waves Chairs: K. Hashimoto, M. Pluta Faculty of Social Sciences Room C108	Ultrasonic Standing Waves - Techniques and Applications as the USWnet 2011 Chair: I. Gonzales Faculty of Math. Phys. Auditory No 2
TUE 17 ²⁰ - 17 ⁴⁰	Michael Lenz, Elfgard Kühnicke <i>Non-scanning measurement of convex and concave curvature with an annular array</i>	Alberto Rodríguez <i>Defect characterization in steel alloys using the modified split-spectrum algorithm</i>	Spiros Kotopoulos, Michiel Postema <i>Biomedical ultrasonics, cavitation, and sonoporation</i>	Thomas Dehoux, Bertrand Audoin, Nicolas Tsapis <i>Polymer microcapsules as a model object for the analysis of laser-induced GHz-phonon propagation in biological samples</i>	Alexander Darinskii, Manfred Weihnacht, Hagen Schmidt <i>FEM Simulation of SAW Reflection in Crystals</i>	Athanasia Evangelos Christakou, Mathias Ohlin, Mohammad Ali Khorshidi, Björn Önfelt, Martin Wiklund <i>Cell manipulation in a multi-well micro-plate using ultrasonic standing waves</i>

TUE 17 ⁴⁰ - 18 ⁰⁰	Shigeaki Aoki, Masayoshi Toba, Norihisa Thujita <i>Characteristics of stereo reproduction with parametric loudspeakers</i>	Elena Jasiūnienė, Egidijus Žukauskas <i>Numerical investigation of the objects with complex geometry structure using ultrasonic techniques</i>	Spiros Kotopoulos, Michiel Postema, Sandy Cochran <i>Ultrasound transducers made with lithium niobate for HF HIFU</i>	Vitalyi Gusev, Alexey Lomonosov, Pascal Ruello, Adil Ayouch, Gwenaëlle Vaudel, Thomas Pezeril, Denis Mounier <i>Depth-profiling of the spatial inhomogeneities in optically transparent materials by picosecond ultrasonic interferometry: Theory</i>	Jun Kondoh, Hitoshi Toyozumi, Takaaki Sugita <i>Digital micro-fluidic system using surface acoustic wave device track bulk and surface acoustic waves</i>	Alexandra Bobrovskaya, Dmitry Stepanenko, Vladimir Minchenya <i>Self-organization of granular media in airborne ultrasonic fields</i>
room/time		NDT: Modeling and Simulation Chairs: A. Every, R. Kažys Faculty of Social Sciences Room C111	Therapeutic Ultrasound Chairs: M. Postema, G.P. Gavin Faculty of Social Sciences Room C112	Emergent Topics Chair: W.S. Gan Faculty of Math. Phys. Auditory No 1	Bulk and Surface Acoustic Waves Chairs: K. Hashimoto, M. Pluta Faculty of Social Sciences Room C108	Ultrasonic Standing Waves - Techniques and Applications as the USWnet 2011 Chairs: I.Gonzales Faculty of Math. Phys. Auditory No 2
TUE 18 ⁰⁰ - 18 ²⁰	Ramin Khamedi, Amir Refahi Oskouci, Giangiacomo Minak, Andrea Zucchelli <i>Effect of martensite phase morphology on acoustic emission signals using energy analysis during tensile loading of dual phase steels</i>	Graham Paul Gavin <i>Soft Tissue Cutting with Ultrasonic Mechanical Waveguides</i>	Adriano Alippi, Andrea Bettucci, Angelo Biagioni, Davide Conclusio, Annunziata D'Orazio, Massimo Germano, Daniele Passeri <i>Non linear behaviour of cell tensegrity models</i>	Bartłomiej Graczykowski, Sławomir Mielcarek, Aleksandra Trzaskowska, Piotr Patoka, Michael Giersig <i>Rayleigh surface waves propagating in (111) Si substrate decorated with Ni phononic nanostructure</i>	Soichi Murakami, Daisuke Koyama, Kentaro Nakamura <i>Ejection of small objects in a noncontact ultrasonic transporter</i>	

TUE 18 ²⁰ - 18 ⁴⁰				Woon Siong Gan <i>New acoustics, based on lefthanded materials, II. Multiple scattering</i>	Anowarul Habib, Amit Shelke, Umar Amjad, Mieczyslaw Pluta, Ulrich Pietsch, Tribikram Kundu, Wolfgang Grill <i>Scattering and attenuation of surface acoustic and surface scanning waves imaged by Coulomb coupling</i>	
TUE 19 ³⁰	Departure for the banquet					

WEDNESDAY – 7th of September

WED 9 ⁰⁰ - 9 ⁵⁵	<p>Keynote Lecture: Professor Tadeusz Stepinski (Chair: Professor Laszlo Adler) Tadeusz Stepinski <i>Ultrasonic nondestructive inspection of solid objects</i></p> <p>Social Sciences Faculty, Room S 205</p>					
room/time	<p>NDT: Industrial Applications Chairs: S.V. Egerem, B. Piwakowski Faculty of Math. Phys. Auditory No 3</p>	<p>NDT: Modeling and Simulation Chairs: A. Every, R. Kažys Faculty of Math. Phys. Auditory No 2</p>	<p>Therapeutic Ultrasound Chairs: M. Postema, G.P. Gavin Faculty of Social Sciences Room C108</p>	<p>Picosecond Laser Ultrasonics Chairs: V. Gusev, P. Ruello, O.B. Wright Faculty of Math. Phys. Auditory No 1</p>	<p>High Power Ultrasound Chairs: Y. Ito, J.A. Gallego-Juárez Faculty of Social Sciences Room C111</p>	<p>NDT: Guided Waves Chairs: M. Deschamps, L. De Marchi Faculty of Social Sciences Room C112</p>
WED 10 ⁰⁰ - 10 ²⁰	<p>Tsuneoyoshi Sugimoto <i>Contour imaging of buried object at extremely shallow underground using phase difference</i></p>	<p>Milad Hajikhani, Ramin Khamedi, Mehdi Ahmadi, Amir Refahi Oskouci <i>Study of failure mechanisms at mode I delamination in glass/polyester composites by acoustic emission monitoring</i></p>	<p>Faqi Li, Huarong Yi, Mingsong Zhong, Huijian Ai, Jie Chen, Zhibiao Wang <i>The effects of acoustic power and exposure time on the hyperecho in ultrasound images at 55°C using MRI and US guided HIFU in a bovine liver specimen</i></p>	<p style="text-align: center;">Invited lecture</p> <p>Alexey Scherbakov <i>Modulation of magnetization by picosecond strain pulses in ferromagnetic (Ga,Mn)As</i></p>	<p>Atsuyuki Suzuki, Eiichiro Ueki, Jiromaru Tsujino <i>Impact-absorbing characteristics by applying ultrasonic vibration</i></p>	<p>Bert Verstraeten, Christ Glorieux, Xiaodong Xu, Loïc Martinez <i>Full elastic characterization of absorptive rubber using laser excited guided ultrasonic waves.</i></p>
WED 10 ²⁰ - 10 ⁴⁰	<p>Carlos Sierra, Pablo Resa, Vitaly Buckin, Luis Elvira <i>Monitoring of soluble starch hydrolysis induced by pure α-amylase from <i>Aspergillus oryzae</i> using ultrasonic spectroscopy</i></p>	<p>Kazunari Makino, Shiro Biwa, Hiroshi Sakamoto <i>Modeling and simulation for ultrasonic testing of miniature wheelset</i></p>	<p>Maxim A. Solovchuk, Tony Wen-Hann Sheu, Marc Thiriet <i>Effects of tissue absorption and nonlinearity on the temperature distribution during focused</i></p>	<p>Jiromaru Tsujino, Eiichi Sugimoto <i>Welding characteristics of same and different metal specimens using ultrasonic complex vibration welding equipments</i></p>	<p>Farouk Benmeddour, Laurent Laguerre, Fabien Treyssède <i>Scattering of guided waves from discontinuities in cylinders: experimental and numerical analysis</i></p>	

			<i>ultrasound therapy with acoustic streaming and blood convection effects being taken into account</i>			
WED 10 ⁴⁰ - 11 ⁰⁰	Sergey V. Egerev, Victor Yushin, Oleg Ovchinnikov, Vladimir Dubinsky, Douglas Patterson <i>Obtaining anisotropic velocity data for proper depth seismic imaging</i>	Prashanth Kumar Chinta, Mayer Klaus, Karl Jörg Langenberg <i>Numerical Modeling of Elastic Inhomogeneous Anisotropic Media Using 3D-Elastodynamic Finite Integration Technique</i>	Anthony Delalande, Spiros Kotopoulis, Patrick Midoux, Michiel Postema, Chantal Pichon <i>Cell-microbubble interaction and intracellular fate of plasmid DNA and microbubbles during the sonoporation process</i>	Motonobu Tomoda, Yohei Iwasaki, Oliver B. Wright, Osamu Matsuda, Thomas Dehoux, Vitalyi Gusev <i>Nanoscale mechanical contacts probed through ultrafast electron diffusion</i>	Enrique Riera, Andrea Cardoni, Victor M. Acosta, Juan A. Gallego-Juárez <i>Nonlinear behaviour of power ultrasonic transducers for food processing</i>	Liudas Mažeika, Rymantas Kažys, Renaldas Raišutis, Egidijus Žukauskas, Alfonsas Vladišauskas <i>Detection of defects in multi-layered composite constructions using ultrasonic guided waves</i>
WED 11 ⁰⁰ - 11 ²⁰ coffee & tea break						
room/time	NDT: Industrial Applications Chairs: S.V. Egerem, B. Piwakowski Faculty of Math. Phys. Auditory No 3	NDT: Modeling and Simulation Chairs: A. Every, R. Kažys Faculty of Math. Phys. Auditory No 2	Bioeffects of Ultrasound Chair: T.J. Mason Faculty of Social Sciences Room C108	Picosecond Laser Ultrasonics Chairs: V. Gusev, P. Ruello, O.B. Wright Faculty of Math. Phys. Auditory No 1	Ultrasound in Anisotropic Materials Chair: H. A. A. Afifi Faculty of Social Sciences Room C111	NDT: Guided Waves Chairs: M. Deschamps, L. De Marchi Faculty of Social Sciences Room C112
WED 11 ²⁰ - 11 ⁴⁰	Shukla Shiva Kant <i>A new ultrasound based method for rapid microorganism detection</i>	Mieczysław Pluta, Umar Amjad, Hermann Klinghammer, Diwaker Jha, Khurram Shahzad Tarar, Wolfgang Grill, <i>Stress dependent dispersion relation of acoustic waves travelling on chain of point masses connected by anharmonic linear and torsional springs</i>	Krzysztof J. Nowotarski, Patrick M. King, Eadaoin Joyce, Timothy J. Mason <i>Ultrasonic disruption of algae cells</i>	Mansour Kouyate, Denis Mounier, Thomas Pezeril, Vitalyi Gusev <i>Applications of the Jones and 4 × 4 matrix formalism in the theory of optical detection of picosecond acoustic pulses</i>	Dmytro Yurievich Libov <i>Resonant Vibrations of Pb(ZrTi)O₃ Disk</i>	Mehbub-Ur Rahman, Jens Prager <i>Modelling of Lamb wave propagation with elastodynamic finite integration technique</i>

WED 11 ⁴⁰ - 12 ⁰⁰	Frederic Bert Cegla, Peter O. Cawley, Jon O. Allin, Jacob Owen Davies <i>High temperature (>500C) ultrasonic wall thickness monitoring using permanently attached sensors</i>	Linas Svilainis, Vytautas V. Dumbrava, Sergej Kitov, Andrius Chaziachmetovas <i>The influence of digital domain on time of flight estimation performance</i>	Youhan Sunny, Chris Bawiec, An Nguyen, Joshua Samuels, Leonid Zubkov, Elisabeth S. Papazoglou and Peter A. Lewin, <i>Customized and noninvasive transcutaneous drug transport: will ultrasound deliver?</i>	Chien-Cheng Chen, Huei-Min Huang, Tien-Chang Lu, Hao-Chung Kuo, Chi-Kuang Sun <i>Generation and detection of sub- THz shear acoustic waves with m-plane GaN light emitting diode</i>	Sanjeeva Reddy Kolkoori, Mehbub-Ur Rahman, Jens Prager, Rainer Boehm, Prashanth Kumar Chinta <i>Simulation of ultrasonic sound fields in anisotropic materials using 2-D ray tracing method</i>	Fabian Bause, Jens Rautenberg, Andreas Schröder, Sergei Olfert, Bernd Henning, Elmar Moritzer <i>Ultrasonic nondestructive testing of composite materials using disturbed coincidence</i>
room/time	NDT: Industrial Applications Chairs: S.V. Egerem, B. Piwakowski Faculty of Math. Phys. Auditory No 3	Transducer Modeling and Metrology Chair: W. Sachse Faculty of Math. Phys. Auditory No 2	Bioeffects of Ultrasound Chair: T.J. Mason Faculty of Social Sciences Room C108	Picosecond Laser Ultrasonics Chairs: V. Gusev, P. Ruello, O.B. Wright Faculty of Math. Phys. Auditory No 1	Ultrasound in Anisotropic Materials Chair: H. A. A. Affi Faculty of Social Sciences Room C111	NDT: Guided Waves Chairs: M. Deschamps, L. De Marchi Faculty of Social Sciences Room C112
WED 12 ⁰⁰ - 12 ²⁰	James Anthony Beddow <i>Sonochemical coating of textile fabrics with antibacterial nanoparticles</i>	Steffen Wolter, Andreas Kopp, Eckhard Liebscher, Eike Rosenfeld <i>Consistency check of diagnostic ultrasound transducer arrays by using tissue-equivalent phantoms</i>	Saulius Satkauskas, M. Tamošiūnas, R. Jurkonis, L. M. Mir, A. Lukoševičius, M. S. Venslauskas <i>Sonoporation efficiency in dependence on microbubble sonodestruction rate</i>	Mansour Kouyate, Vitali Gusev, Thomas Pezeril, Denis Mounier <i>Picosecond inhomogeneous shear acoustic waves excited by laser induced thermoelastic gratings at the interface between opaque and transparent media</i>	Vadim Moiseevich Levin, Konstantin V. Zakutailov, Marina G. Goryunova <i>Field singularities in focused beam interaction with anisotropic specimens</i>	Javad Rostami <i>A case study of using guided waves for detecting corrosion in pipelines</i>
WED 12 ²⁰ - 12 ⁴⁰	Yoshikazu Ohara, Satoshi Horinouchi, Yohei Shintaku, Kazushi Yamanaka	Elfgard Kühnicke, Michel Lenz <i>Novel approach for locally resolved non invasive sound</i>	Bożena Ewa Smagowska <i>The results of annoyance of ultrasonic noise on the human body</i>	Osamu Matsuda, Atsushi Ohno, Shun Koiwa, Motonobu Tomoda, Oliver B. Wright	Hisham Abdel Azizi Afifi, Vadim M. Levin, K. V. Zakutailov <i>Carbon fiber reinforced</i>	Hauke Gravenkamp, Jens Prager, Chongmin Song <i>Detection of defects in thin-</i>

	<i>Accelerated formation of closed stress corrosion cracks in Ni-based alloy weld metal and its evaluation by subharmonic phased array</i>	<i>velocity measurements</i>		<i>Ultrafast diffusion of photoexcited carriers in metals studied by direct measurement of surface displacement in picosecond laser ultrasonics</i>	<i>composite (CFRC) laminates as 3D phononic crystals</i>	<i>walled structures by means of Lamb waves</i>
WED 12 ⁴⁰ - 13 ⁰⁰	Sylvain Mezil, Nikolay Chigarev, Vincent Tournat, Vitali Gusev <i>Remote nonlinear opto-acousto-optic technique for crack evaluation</i>	Nicolás Pérez, Marco Aurelio Brizzotti Andrade, Flávio Buiochi, Julio Cezar Adamowski <i>Numerical characterization of soft piezoelectric ceramics</i>	Linás Svilainis, Andrius Chaziachmetovas, Darius Kybartas, Rytis Jurkonis <i>Sonoporation generator design and performance evaluation</i>	Nicolas Chuecos, Emmanuel Péronne, Bernard Perrin <i>Retrieval of initial nonlinear strain profile by ultrafast solitons measurement in femtosecond laser ultrasonics experiment</i>		Alessandro Perelli, Luca De Marchi, Alessandro Marzani, Nicolò Speciale <i>Passive impacts localization based on dispersion compensation and cross-correlated signals wavelet analysis</i>
WED 13 ⁰⁰ -13 ²⁰	Mariusz Kaczmarek, Bogdan Piwakowski, Radosław Drelich <i>Characterization of structure of porous materials by ultrasonic reflectometry</i>	Sergey Tsysar, Oleg Sapozhnikov, Cyril Lafon, Thomas Charrel, Michael Canney <i>Improving acoustic holography of ultrasonic transducers based on their virtual shifts and rotation relative to a field-mapping surface</i>		A. M. Lomonosov, P. Ruello, A. Ayouch, G. Vaudel, M.R. Baklanov, P. Verdonck, L. Zhao, V. Gusev <i>Resolving of optical and elastic inhomogeneity in thin transparent films by means of picosecond acoustics interferometry: experiment</i>		
WED 13 ²⁰ - 14 ⁰⁰	Tadeusz Gudra, Przemysław Cieplik, Krzysztof Jacek Opielinski <i>Ultrasonic spectroscopy in non-destructive testing of materials</i>	André Victor Alvarenga, Cristiane Evelise Ribeiro Silva, Rodrigo Pereira Barretto Costa-Félix <i>Estimation of ultrasonic beam parameters uncertainty from NDT immersion probes using Monte Carlo method</i>				

WED
13³⁰ - 15⁰⁰

Lunch
Social Sciences Faculty, restaurants & B 103

WED
15⁰⁰ - 15⁵⁵

Keynote Lecture: Professor Fabio Cardone (Chair: Professor Antoni Śliwiński)
Fabio Cardone
Ultrasonic Piezonuclear Reactions
Social Sciences Faculty, Room S205

room/time	NDT: Industrial Applications Chairs: S.V. Egerev, B. Piwakowski Faculty of Math. Phys. Auditory No 3	Acoustic Microscopy Chairs: P. Lewin, V.M. Levin Faculty of Math. Phys. Auditory No 2	Molecular Acoustics Chairs: J. Gliński, W. Marczak Faculty of Social Sciences Room C108	Scanning laser NDE: Fundamentals and application Chair: P. Hess Faculty of Math. Phys. Auditory No 1	Poster Session Chair: V. Voloshinov Faculty of Math. Phys. hall
WED 16 ⁰⁰ - 16 ²⁰	Amir Refahi Oskouei, Ramin Khamedi <i>acoustic emission data clustering for analyzing damage mechanisms in glass/polyester composites under mode I delamination</i>	Vadim Moiseevich Levin <i>Impulse acoustic microscopy – results and prospects. Short review</i>	Marta Łęczniak, Krzysztof Bebek, Marzena H. Dzida, Wojciech Marczak <i>Association of propan-2-ol in cyclohexane studied by acoustic and volumetric methods</i>	Alexey M. Lomonosov, Peter Hess <i>Noncontact, nondestructive evaluation of real partially-open cracks with surface acoustic waves by scanning laser excitation and detection</i>	<i>Wednesday</i> <i>Poster Session 16⁰⁰-17⁴⁰</i>
WED 16 ²⁰ - 16 ⁴⁰	Resonators and Waveguides Chair: S.V. Egerev Mohammad Esmail Aryace Panah, Seyyed Mohammad Hasheminejad,	Vadim Moiseevich Levin, Jinwen Ding, Yulia S. Petronyuk <i>Contribution of edge diffraction phenomena in formation of acoustic images</i>	Marzena H. Dzida, Agnieszka Rodak, Anna Nowak <i>Influence of temperature and composition upon speeds of sound and densities of dibutyl ether + dodecane mixtures</i>	Rachel S. Edwards, A. R.Clough, M. H. Rosli, F. Hernandez-Valle, B. Dutton <i>Detection and characterisation of surface cracking using scanning laser techniques</i>	

	Farnaz Bagheri <i>Modal acoustic impedance of an infinite cylindrical source immersed in an unbounded thermoviscous fluid</i>					
WED 16 ⁴⁰ - 17 ⁰⁰	Mohammad Esmail Aryaee Panah, Yaser Mirzaei <i>Resonance frequency of a circular cylinder cavity with an eccentrically located inner circular cavity</i>	Oksana Petrushin, Amit Balasaheb Shelke, Ralph Pflanzner, Robert Sader, Jürgen Bereiter-Hahn <i>Elastic property of human jaw bone by acoustic material signature curve</i>	Krzysztof Klimaszewski, Adam Bald <i>Sonochemical studies on water-alkoxycalcohols mixtures and electrolyte solutions in such binary mixtures</i>	Zhonghua Shen, Chenyin Ni, Jia Li, Liming Dong <i>Crack detection by scanning laser generated surface acoustic waves</i>		
WED 17 ⁰⁰ - 17 ²⁰	coffee & tea break					
room/time	Ultrasound and Particles in Suspension Chair: M.A.B. Andrade Faculty of Math. Phys. Auditory No 3	Acoustic Microscopy Chairs: P. Lewin, V. M. Levin Faculty of Math. Phys. Auditory No 2				Poster Session Chair: V. Voloshinov Faculty of Math. Phys. hall
WED 17 ²⁰ - 17 ⁴⁰	Jaime Rodríguez-López, Luis Elvira Segura, Richard O'Leary, Francisco Montero de Espinosa Freijo <i>Effect of particle volume fraction on the velocity of sound in magnetorheological fluids</i>	Hirotsugu Ogi, Soichiro Oura, Masahiko Hirao <i>Resonance ultrasound microscopy for mapping acoustic nonlinearity</i>				<i>Wednesday</i> <i>Poster Session 16⁰⁰-17⁴⁰</i>

<p>WED 17⁴⁰ - 18⁰⁰</p>	<p>Marco Aurelio Brizzotti Andrade, Agesinaldo Matos Silva Jr., Flávio Buiochi, Julio Cezar Adamowski <i>Development of ultrasonic cylindrical cells for trapping of oil droplets</i></p>	<p>Albert E Kamanyi, Esam T. Ahmed Mohamed, Wolfgang Grill <i>Mesoscale soft matter acoustics: microscopic materials characterization of soft polymer films and deposits including biological objects</i></p>				
<p>WED 18⁰⁰ - 18²⁰</p>	<p>David Nobes, Alireza Setayeshgar, Micheal G. Lipsett, Charles R. Koch <i>Investigating the particles motion in ultrasonic acoustic wave field using PIV/PTV</i></p>					
<p>WED 19⁰⁰</p> <p style="text-align: center;">Organ Concert in Oliwa Cathedral</p>						

THURSDAY – 8th of September

THU 9 ⁰⁰ - 9 ⁵⁵	<p>Keynote Lecture: Professor Victor A. Akulichev (Chair: Professor Eugeniusz Kozaczka) Victor A. Akulichev <i>Cavitation Nuclei and Thresholds of Acoustic Cavitation in Ocean Water</i></p> <p>Social Sciences Faculty, Room S 205</p>				
room/time	<p>Cavitation and Sonoluminescence Chair: M. Gyöngy Faculty of Math. Phys. Auditory No 3</p>	<p>Biomedical Ultrasound Chairs: T. Gudra, P. Laugier Faculty of Math. Phys. Auditory No 2</p>	<p>Ultrasound and Lasers Chairs: G.M. Pacheco O. Sapozhnikov Faculty of Social Sciences Room C108</p>	<p>Thermoacoustics Chairs: J. Szurkowski, S. Sakamoto Faculty of Math. Phys. Auditory No 1</p>	
THU 10 ⁰⁰ - 10 ²⁰	<p>Marc Hauptmann <i>The importance of control over bubble size distribution in pulsed megasonic cleaning</i></p>	<p>Liguo Zhang, Anne-Virginie Salsac <i>Can sonication increase the release from hydrogel capsules?</i></p>	<p>Invited lecture Sergey V. Egerev, Oleg Ovchinnikov <i>Photoacoustics of disperse systems: under cavitation threshold</i></p>	<p>Xie Xiujuan, Gao Gang, Li Qing <i>Study On an Open-air Traveling-wave Thermoacoustic Generator</i></p>	
THU 10 ²⁰ - 10 ⁴⁰	<p>Kenji Yoshida <i>Experimental measurement of resonant characteristic of a bubble by using laser Doppler vibrometer</i></p>	<p>Christiano Bittencourt Machado, Wagner Coelho de Albuquerque Pereira, Frédéric Padilla, Pascal Laugier <i>The effect of bone fracture unevenness on ultrasound axial transmission measurements: a pilot 2D simulation study</i></p>		<p>Gang Gao, Xiujuan Xie, Qing Li, Shuang Zhao <i>Investigation on shapes of the resonator related to radiation impedance in the open traveling-wave thermoacoustic generator</i></p>	
THU 10 ⁴⁰ - 11 ⁰⁰	<p>Tatyana V. Gordeychuk, Mikhail V. Kazachek <i>On a shape of alkali-metal lines in sonoluminescence spectra</i></p>	<p>Serge Dos Santos, Zuzana Farova, Vaclav Kus, Zdenek Prevorovsky <i>Echodentography based on nonlinear time reversal tomography: ultrasonic nonlinear signature identification</i></p>	<p>Victor V. Kozhushko, Heinz Krenn, Reinhard Pippan <i>Detection of broadband laser induced longitudinal ultrasonic pulses in ultrafine grain nickel by pancake coil</i></p>	<p>Maxim Daschewski, Andrea Harrer, Matthias Guderian, Asmus Meyer-Plath, Jens Prager, Marc Kreutzbruck <i>Carbon nanomaterials as broadband airborne ultrasound transducer</i></p>	

THU

11⁰⁰ - 11²⁰

coffee & tea break

room/time	Cavitation and Sonoluminescence Chair: M. Gyöngy Faculty of Math. Phys. Auditory No 3	Biomedical Ultrasound Chairs: T. Gudra, P. Laugier Faculty of Math. Phys. Auditory No 2	Ultrasound and Lasers Chairs: G.M. Pacheco, O. Sapozhnikov Faculty of Social Sciences Room C108	Thermoacoustics Chairs: J. Szurkowski, S. Sakamoto Faculty of Math. Phys. Auditory No 1	Poster session Chair: W. Sachse Faculty of Math. Phys. hall
THU 11 ²⁰ - 11 ⁴⁰	Matthias Jüschke, Christian Koch <i>Identification of indicators for a quantitative description of cavitation applications</i>	Jean-Gabriel Minonzio, Josquin Foiret, Maryline Talmant, Pascal Laugier <i>Guided mode measurement on bone mimicking phantoms with a 1MHz axial transmission clinical probe</i>	Nikolay Chigarev, Vincent Tournat, Andreas Zerr, Vitalyi Gusev <i>Laser ultrasonic technique for the evaluation of visco-elastic properties of liquids</i>	Kazuki Sahashi, Shin-ichi Sakamoto, Yoshiaki Watanabe <i>Fundamental study for a working mechanism of Phase Adjuster set on thermoacoustic cooling system</i>	<i>Thursday Poster Session 11²⁰-13⁰⁰</i>
THU 11 ⁴⁰ - 12 ⁰⁰	Nobuo Tsurumi, Yoshiaki Tamura, Yoichiro Matsumoto <i>Numerical simulation of ultrasound wave propagation in water with bubbles</i>	Thien-Ly Pham, Maryline Talmant, Pascal Laugier <i>Ultrasound axial transmission on long cortical bones: a multi-frequency approach of the first arriving signal</i>	Oleg Sapozhnikov, Bryan Cunitz, Michael Bailey <i>Use of broadband laser vibrometer to characterize piezoelectric transducer vibration and nonlinearly distorted ultrasound waves in water</i>	Chunping Zhang, Wei Liu, Zhengyu Li, Feng Wu, Zhichun Yang <i>Experimental research of high frequency standing wave thermoacoustic refrigerator driven by loudspeaker</i>	
THU 12 ⁰⁰ - 12 ²⁰	Till Nowak, Robert Mettin, Frank Ludwig Holsteyns, Alexander Lippert <i>Observation of acoustic streaming under presence of acoustic cavitation</i>	André Victor Alvarenga, César A. D. Teixeira, Marco Antonio von Krüger, Wagner Coelho de Albuquerque Pereira <i>Temperature non-invasive assessment at different tissue types based on average gray-level from B-mode ultrasonic images</i>	Nikolay Chigarev, Sylvain Mezil, Vincent Tournat, Vitalyi Gusev <i>Imaging of a cylindrical contact by nonlinear frequency-mixing photoacoustic technique</i>	Lihua Zhou, Xiujuan Xie, Qing Li <i>Influence of different boundary conditions on modulating inlet pressure and velocity of regenerator</i>	

THU 12 ²⁰ - 12 ⁴⁰	Miklós Gyöngy, James R. T. Collin, Balázs Rózsa <i>Phase calibration of ultrasonic receivers using cavitation</i>		Samuel Raetz, Thomas Dehoux, Bertrand Audoin <i>Asymmetric thermoelastic generation in semi-transparent materials with an oblique laser incidence</i>		
THU 13 ³⁰ - 15 ⁰⁰ <p style="text-align: center;">Lunch Social Sciences Faculty, restaurants & B 103</p>					
THU 15 ⁰⁰ - 15 ⁵⁰	<p>Keynote Lecture: Professor Jürg Dual (Chair: Peter A. Lewin)</p> <p>J. Dual, S. Oberti, A. Neild, J. Wang, T. Schwarz, D. Möller <i>Particle Manipulation Using Acoustic Radiation Forces in Micromachined Devices</i></p> <p>Social Sciences Faculty, Room S205</p>				
THU 16 ⁴⁵ <p style="text-align: center;">Farewell party Social Sciences Faculty, hall</p>					

Poster list

Wednesday Poster Session 16⁰⁰-17⁴⁰, Faculty of Math. Phys. hall

1. Ferria Kouider, Graini Lazhar, Laouar Naamane, *Acousto-optic method used to control water pollution by miscible liquids*, Acousto-optics (11th AO School)
2. Gefeson Mendes Pacheco, Claudio Kitano, João Marcos Salvi Sakamoto, Rikardo Tokio Higuti, *Single acousto-optic modulator as variable attenuator and WDM equalizer*, Acousto-optics
3. Jaroslavas Belovickis, Romualdas Rimeika, Daumantas Ciplys, *Acousto - optic interaction of leaky surface acoustic waves in Y-cut LiTaO₃ crystals*, Acousto-optics (11th AO School)
4. Vitold Pozhar, Alexander Machikhin, *AOTF-Based 3D Spectral Imaging System*, Acousto-optics (11th AO School)
5. Igor Malinowski, *The LaparosoundTM an ultrasonic morcellator for use in laparoscopic surgery*, Biomedical Ultrasound
6. Atsushi Hosokawa, *Numerical simulation of cancellous bone remodeling using finite difference time-domain method*, Biomedical Ultrasound
7. Sidsel Marie Norholm Sjoj, Esther Novo Blanco, Jens E. Wilhelm, Henrik Jensen, Martin Christian Hemmsen, Jorgen Arendt Jensen, *Ultrasound pulse-echo measurements on rough surfaces with linear array transducers*, Biomedical Ultrasound
8. Guillermo Cortela, Nicolás Benech, Wagner Coelho Pereira, Carlos Negreira, *Temperature-induced changes in soft tissues analyzed by spectral methods and transient elastography: a comparative study*, Biomedical Ultrasound
9. Krzysztof Jacek Opieliński, Piotr Pruchnicki, Tadeusz Gudra *2-D directional ultrasonic passive matrix of 512 elementary transducers for projection imaging of biological structures*, Biomedical Ultrasound
10. Michihisa Shiiba, Mutsuo Ishikawa, Norimichi Kawashima, Takeyoshi Uchida, Tsuneo Kikuchi, Minoru Kurosawa, Shinichi Takeuchi, *Cavitation sensor with hydrothermally synthesized lead zirconate titanate poly-crystalline film on titanium cylindrical pipe: Estimation of acoustic cavitation field and basic characteristics of cavitation sensor*, Cavitation and Sonoluminescence
11. Takeyoshi Uchida, Shinichi Takeuchi, Tsuneo Kikuchi, *A study on measurement technique for amount of generated acoustic cavitation – investigation of broadband integrated voltage by comparing with sound pressure and sonochemical luminescence*, Cavitation and Sonoluminescence
12. Luis Gaete Garretton, *The corner frequency to characterizing induced cracks in rock samples*, General papers
13. Danielius Gužas, *Physical Acoustics Education to Today's Technology*, General Papers
14. Ediguer Enrique Franco, Julio Cezar Adamowski, Flávio Buiochi, *Experimental study on the determination of the shear-wave reflection coefficient at the solid-liquid interface*, Physical Acoustics

15. Krzysztof Łapsa, Ewa Andrzejewska, Małgorzata Podgórska-Golubska, *Spectroscopy studies of monomer/ (ionic liquid) mixtures*, Physical Acoustics
16. Natalya Odina, Aleksandr Korobov, Anna Semenova, *Experimental research of the gruneisen parameter of beusler alloy Ni(2.16)Mn(0.79)GaFe(0.05) in the field of martensitic transition*, Physical Acoustics
17. Tony Valier-Brasier, Thomas Dehoux, Bertrand Audoin, *Influence of the contact between solid half-spaces on laser-generated interface waves*, Picosecond Laser Ultrasonic
18. Shin-ichi Sakamoto, Kenji Shibata, Yuji Kitadani, Yoshitaka Inui, Yoshiaki Watanabe, *One factor of resonant wavelength shift from one-wavelength to two-wavelength resonance in loop-tube-type thermoacoustic cooling system*, Thermoacoustics
19. Carsten Unverzag, *Finite element simulation of single ultrasonic transducer with segmented electrodes to adjust the directional characteristic*, Transducer Modeling and Metrology
20. Takehiro Takano, Hideki Tamura, Manabu Aoyagi, *Prototype for an Ultrasonic motor using a transmission rod with a stator and a rotor at the both ends*, Ultrasonic Motors and Actuators
21. Jingtao Wang, Jürg Dual, *Time-averaged acoustic force and torque exerted on an arbitrary shaped rigid particle in a viscous fluid using the boundary element method*, Ultrasonic Standing Waves - Techniques and Applications as the USWnet 2011
22. Michael Gedge, Peter Glynne-Jones, Rosie Boltryk, Martyn Hill, *The development of ultrasonic devices for use in an oceanographic flow cytometer*, Ultrasonic Standing Waves - Techniques and Applications as the USWnet 2011
23. Itziar Gonzalez, Victor Acosta, Maria Tijero, Javier Berganzo, *Polymeric micro-resonators: influence of the chip dimensions on the establishment of the pressure node inside the channel*, Ultrasonic Standing Waves - Techniques and Applications as the USWnet 2011
24. Stefan Radel, Cosima Koch, Markus Brandstetter, Bernhard Lendl, *Modeling the spatial behavior of suspended yeast cells manipulated by an Ultrasonic Standing Wave in vicinity of the resonator's reflector*, Ultrasonic Standing Waves - Techniques and Applications as the USWnet 2011
25. João Marcos Salvi Sakamoto, Gefeson Mendes Pacheco, Cláudio Kitano, Humberto Araujo Machado, *Laser ultrasonics system for measurement of speed of sound in gases*, Ultrasound and Lasers

Thursday Poster Session 11²⁰-13⁰⁰, Faculty of Math. Phys. hall

26. Takasuke Irie, Takasuke Irie, Norio Tagawa, Tadashi Moriya, Masasumi Yoshizawa, Kouichi Itoh, *A Transmission method of 100-MHz-range ultrasonic wave using a fused quartz fiber*, Acoustic Microscopy
27. Toshihiro Sakamoto, Shingo Akao, Takamitsu Iwaya, Toshihiro Tsuji, Noriraka Nakaso, Kazushi Yamanaka, *Ball SAW gas chromatograph for environmental analysis*, Acoustic Sensors
28. Takamitsu Iwaya, Shingo Akao, Toshihiro Sakamoto, Aya Yoshino, Toshihiro Tsuji, Noritaka Nakaso, Kazushi Yamanaka, *Development of metal MEMS column for portable acoustic wave gas chromatograph*, Acoustic Sensors
29. Marcelo Yassunori Matuda, Flávio Buiocchi, Julio Cezar Adamowski, *Imaging through an unknown interface using an ultrasonic linear array*, Adaptive Imaging and Focusing
30. Bogdan Piwakowski, Pawel Safinowski, Mariusz Kaczmarek, *Surface wave technique in evaluation of concrete cover: data processing and identification method*, Bulk and Surface Acoustic Waves
31. Serge Dos Santos, Víctor Sanchez-Morcillo, Andre-Pierre Abellard, Ayache Bouakaz, *Modulational instability of microbubbles surface modes*, Contrast Agents
32. Lorena Petrella, Wilfrido Gómez, André Alvarenga, Wagner Pereira, *Gabor filters for the segmentation of skin lesions from ultrasonographic images*, High Frequency Medical Imaging
33. Takuya Asami, Hikaru Miura, *Vibration characteristic of ultrasonic complex vibrator for hole machining*, High Power Ultrasound
34. Youichi Ito, Tomoyuki Kuriyama, Ayumu Osumi, *Generation of high-intensity sound waves by a point-convergence type aerial ultrasonic sound source with a flexural vibrating rectangular plate and paraboloid reflector*, High Power Ultrasound
35. Enrique Riera, Miguel Blasco, Antonio Tornero, Elvira Casas, Carmen Roselló, Susana Simal, Juan A. Gallego-Juárez, *A pilot scale ultrasonic system to enhance extraction processes with dense gases*, High Power Ultrasound
36. Manabu Aoyagi, Yuta Amagi, Ryota Okeya, Hideki Tamura, Takehiro Takano, *Approach warning system for snowplow using aerial-high-power ultrasonic wave with radio wave*, High Power Ultrasound
37. Božena Czech, Piotr Lodowski, Wojciech Marczak, *Energy of hydrogen bonds and the acoustic and thermodynamic properties of binary liquid mixtures of pyridine and its methyl derivatives with methanol and water*, Molecular Acoustics
38. Anna Przybyła, Piotr Lodowski, Wojciech Marczak, *Hydrogen bonds in binary mixtures of pyridine and its methyl-substituted derivatives with 1,2-ethanediol investigated by the acoustic and volumetric methods*, Molecular Acoustics
39. Andrzej Burakowski, Jacek Gliński, Helge Pfeiffer, Nikos Chatziathanasiou, *Unusual ultrasonic behaviour of aqueous 2,2,2-Trifluoroethanol solutions*, Molecular Acoustics

40. Edward Marek Zorębski, Anna Przybyła, *Speeds of sound, molar isentropic compressibilities, and molar volumes relative excesses for binary mixtures of 1,2-propanediol with 1-alkanols (C3 – C6) at 298.15 K*, Molecular Acoustics
41. Hassina Khelladi, Frédéric Plantier, Jean Luc Daridon, *Evaluation of the glycerol intermolecular free length at different temperatures by a thermo-acoustic approach*, Molecular Acoustics
42. Ayumu Osumi, Youichi Ito, *Nondestructive method of evaluating fire-induced concrete damage by high-intensity aerial ultrasonic waves*, NDT: Industrial Applications
43. Ahmed Amziane, Mohamed Amari, Denis Mounier, Jean-Marc Breteau, Vitaliy Gusev, Nicolas Joly, Julien Banchet, David Tisseur, *Non destructive evaluation and testing of TRISO nuclear fuel using laser ultrasonics*, NDT: Industrial Applications
44. Satoshi Horinouchi, Yohei Shintaku, Yoshikazu Ohara, Kazushi Yamanaka, *Development of subharmonic phased array for crack evaluation (SPACE) with a single array transducer for evaluation of closed stress corrosion cracks*, NDT: Industrial Applications
45. Matteo Nanni, Luca De Marchi, Emanuele Baravelli, Nicolo Speciale, *Multidimensional complex wavelet transforms for guided waves directional filtering*, NDT: Guided Waves
46. Luca De Marchi, Alessandro Marzani, Alessandro Perelli, Nicola Testoni, Nicolo Speciale, *Guided waves characterization of bamboo fibers reinforced composites*, NDT: Guided Waves
47. Denis Syresin, Timur Zharnikov, *An algorithm to calculate dispersion properties of helical waves in radially inhomogeneous elastic waveguides*, NDT: Guided Waves
48. Jinying Zhang, Weijiang Xu, Julien Carlier, Xinming Ji, Bertrand Nongaillard, Yiping Huang, Bogdan Piwakowski, *A novel method for fabrication of high-frequency (>100 MHz) ZnO ultrasonic transducer arrays on silicon substrates*, Transducer Technology
49. Jinying Zhang, Weijiang Xu, Julien Carlier, Xinming Ji, Bertrand Nongaillard, Yiping Huang, Bogdan Piwakowski, *A LiNbO₃ ultrasonic phased array transducer of more than 100 MHz*, Transducer Technology
50. Wilfredo Montealegre Rubio, Emilio Carlos Nelli Silva, Flávio Buiochi, *Manufacturing of PZT-Nickel functionally graded piezoelectric ceramics*, Transducer Technology

Opening hours of the Congress Office (Faculty of Mathematics, Physics and Computer Science hall):

Sunday	04 September	12:00 - 20:00
Monday	05 September	8:00 - 19:30
Tuesday	06 September	8:00 - 18:00
Wednesday	07 September	8:00 - 18:00
Thursday	08 September	8:00 - 16:00