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Speckle 2012: V International Conference on Speckle Metrology

Ángel F. Doval
Cristina Trillo
J. Carlos López-Vázquez
Editors

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The CID number appears on each page of the manuscript. The complete citation is used on the first page, and an abbreviated version on subsequent pages. Numbers in the index correspond to the last two digits of the six-digit CID number.

Contents

xi	<i>Conference Committees</i>
xv	<i>Introduction</i>

SPECKLE THEORY AND FUNDAMENTALS

8413 02	Nonparaxial, three-dimensional and fractal speckle [8413-18] C. J. R. Sheppard, Istituto Italiano di Tecnologia (Italy)
8413 03	Experimental observation of speckle transition [8413-43] M. Chen, C. Dainty, National Univ. of Ireland Galway (Ireland)
8413 04	Speckle characterization in free space and imaging space [8413-61] G. Tang, M. Xu, W. Gao, Y. Shi, J. Liu, North Univ. of China (China); X. Chen, North Univ. of China (China) and Vestfold Univ. College (Norway)
8413 05	Dynamic speckle interferometry of the microscopic processes [8413-49] A. P. Vladimirov, Institute of Engineering Science (Russian Federation) and Ural Federal Univ. (Russian Federation)

SPECKLE PATTERN PHOTOGRAPHY AND DIGITAL IMAGE CORRELATION

8413 07	Speckle displacement for general object deformation of a curved surface [8413-60] I. Yamaguchi, RIKEN (Japan)
8413 08	Systematic errors due to polynomial interpolation in digital image correlation: analysis of some interpolating kernels and experimental validation [8413-56] A. Baldi, F. Bertolino, Univ. degli Studi di Cagliari (Italy)
8413 09	Evaporation under cavity flow: laser speckle correlation of the wind velocity above the liquid surface [8413-23] S. Forestier, F. Heymes, P. Slangen, École des Mines d'Alès (France); L. Munier, E. Lapébie, Commissariat à l'Énergie Atomique Gramat (France); G. Dusserre, École des Mines d'Alès (France)
8413 0B	Light penetration depth of a turbid media estimated by cross-correlation of speckle patterns [8413-41] I. S. Sidorov, Univ. of Eastern Finland (Finland); S. V. Miridonov, Ctr. de Investigación Científica y Educación Superior de Ensenada (Mexico); E. Nippolainen, A. A. Kamshilin, Univ. of Eastern Finland (Finland)

SPECKLE PATTERN INTERFEROMETRY

- 8413 0C **Applications of spatial light modulators in speckle interferometry** [8413-52]
T. Bodendorfer, Technische Univ. München (Germany); R. Restrepo, T. Belenguer, Instituto Nacional de Técnica Aeroespacial (Spain); A. W. Koch, Technische Univ. München (Germany)
- 8413 0D **Full-sensitivity depth-resolved measurements of displacement fields inside weakly scattering materials using wavelength scanning interferometry** [8413-31]
P. D. Ruiz, S. Chakraborty, Loughborough Univ. (United Kingdom)
- 8413 0E **Extension of the measuring range in deformation measurement using artificial phase compensation** [8413-59]
J. Kornis, R. Séfé, Budapest Univ. of Technology and Economics (Hungary)
- 8413 0F **Speckle interferometry based on spatial fringe analysis method using only two speckle patterns** [8413-03]
Y. Arai, T. Inoue, Kansai Univ. (Japan); S. Yokozeki, Jyokou Applied Optics Lab. (Japan)
- 8413 0G **Single-shot profilometry of rough surfaces using hyperspectral interferometry** [8413-54]
P. D. Ruiz, J. M. Huntley, Loughborough Univ. (United Kingdom); T. Widjanarko, Cranfield Univ. (United Kingdom)

DIGITAL HOLOGRAPHY AND HOLOGRAPHIC INTERFEROMETRY

- 8413 0H **Remote laboratories for optical metrology: from the lab to the cloud (Invited Paper)** [8413-64]
W. Osten, M. Wilke, G. Pedrini, Univ. Stuttgart (Germany)
- 8413 0J **Nonlinear phenomena in digital holography: the case of pixel saturation** [8413-09]
P. Picart, Lab. d'Acoustique de l'Univ. du Maine, CNRS, Univ. du Maine (France) and École Nationale Supérieure d'Ingénieurs du Mans (France); P. Tankam, Lab. d'Acoustique de l'Univ. du Maine, CNRS, Univ. du Maine (France); Q. Song, Lab. d'Acoustique de l'Univ. du Maine, CNRS, Univ. du Maine (France) and Kunming Univ. of Science and Technology (China)
- 8413 0K **Vector wave holography: in-line polarization holography** [8413-62]
T. Yatagai, D. Barada, Utsunomiya Univ. (Japan)
- 8413 0L **Two-dimensional lensless object scanning holography** [8413-21]
C. Ferreira, J. García, V. Micó, Univ. de València (Spain)
- 8413 0M **Speckle noise reduction by changing sampling size in digital holography** [8413-7]
Y. Rostami, Azad Univ. (Iran); M. Abolhassani, Arak Univ. (Iran)

DATA RETRIEVAL IN SPECKLE METROLOGY

- 8413 0N **Computational ghost imaging: advanced compressive sensing (CS) technique** [8413-01]
V. Katkovnik, J. Astola, Tampere Univ. of Technology (Finland)

- 8413 0O **Ptychography applied to optical metrology** [8413-30]
D. Claus, Univ. of Sheffield (United Kingdom); D. J. Robinson, D. G. Chetwynd, Univ. of Warwick (United Kingdom); S. Yang, W. T. Pike, Imperial College London (United Kingdom); J. M. Rodenburg, Univ. of Sheffield (United Kingdom)
- 8413 0P **Phase retrieval in temporal speckle interferometry: a comparison of two methods** [8413-06]
G. E. Galizzi, Univ. Nacional de Rosario (Argentina); A. Federico, Instituto Nacional de Tecnología Industrial (Argentina); G. H. Kaufmann, Univ. Nacional de Rosario (Argentina)
- 8413 0Q **Measuring the complex amplitude of speckle fields by means of a shear interferometer** [8413-19]
C. Falldorf, C. von Kopylow, R. B. Bergmann, Bremer Institut für angewandte Strahltechnik GmbH (Germany)
- 8413 0R **A fast and robust approach to phase shift registration from randomly phase shifted interferograms** [8413-32]
A. Hildebrand, C. Falldorf, C. von Kopylow, R. B. Bergmann, Bremer Institut für angewandte Strahltechnik GmbH (Germany)
- 8413 0S **Rotational and direct compensation for digital hologram phase unwrapping** [8413-02]
S. Heshmat, Hokkaido Univ. (Japan) and South Valley Univ. (Egypt); S. Tomioka, S. Nishiyama, Hokkaido Univ. (Japan)

METROLOGICAL CHARACTERIZATION OF SPECKLE TECHNIQUES

- 8413 0T **Miniaturization as a key factor to the development and application of advanced metrology systems (Invited Paper)** [8413-68]
C. Furlong, Worcester Polytechnic Institute (United States), Massachusetts Eye and Ear Infirmary (United States), and Harvard Medical School (United States); I. Dobrev, E. Harrington, P. Heffi, M. Khaleghi, Worcester Polytechnic Institute (United States)
- 8413 0U **Assessment of a dynamic reference material for calibration of full-field measurement systems** [8413-27]
E. Hack, M. Feligiotti, EMPA (Switzerland); A. Davighi, M. Whelan, Joint Research Ctr. Ispra (Italy); W. V. Wang, E. A. Patterson, Univ. of Liverpool (United Kingdom)
- 8413 0V **Quality assessment between digital Fresnel holography and digital image-plane holography** [8413-08]
P. Picart, Lab. d'Acoustique de l'Univ. du Maine, CNRS, Univ. du Maine (France) and École Nationale Supérieure d'Ingénieurs du Mans (France); M. Karray, Lab. d'Acoustique de l'Univ. du Maine, CNRS, Univ. du Maine (France); P. Slangen, École des Mines d'Alès (France)

APPLICATIONS IN ENGINEERING

- 8413 0W **Behavior of chemicals in the seawater column by shadowscopy** [8413-24]
M. Fuhrer, École des Mines d'Alès, LGEI, ISR (France) and Cedre (France); L. Aprin, École des Mines d'Alès, LGEI, ISR (France); S. Le Floch, Cedre (France); P. Slangen, G. Dusserre, École des Mines d'Alès, LGEI, ISR (France)

- 8413 0X **Laser speckle photometry: contactless nondestructive testing technique** [8413-51]
U. Cikalova, J. Nicolai, B. Bendjus, J. Schreiber, Fraunhofer-Institut für Zerstörungsfreie Prüfverfahren (Germany)
- 8413 0Y **Investigation of liquid immersed metallic surface corrosion processes using speckle interferometry** [8413-29]
A. Andres-Arroyo, N. Andrés, M. P. Arroyo, Univ. de Zaragoza (Spain); J. Lobera, Ctr. Universitario de la Defensa (Spain); L. A. Angurel, Instituto de Ciencia de Materiales de Aragón (Spain)
- 8413 0Z **Transient elastic wave propagation and scattering in plates: comparison between pulsed TV-holography measurements and finite element method predictions** [8413-16]
P. Rodríguez-Gómez, J. C. López-Vázquez, C. Trillo, Á. F. Doval, J. L. Fernández, Univ. de Vigo (Spain)
- 8413 10 **Compact sensor combining DSPI and the hole-drilling technique to measure non-uniform residual stress fields** [8413-37]
M. R. Viotti, A. Albertazzi, Jr., Univ. Federal de Santa Catarina (Brazil)
- 8413 11 **Investigation of crack initiation with a three color digital holographic interferometer** [8413-11]
M. Karray, Lab. d'Acoustique de l'Univ. du Maine, CNRS, Univ. du Maine (France) and Unité de Recherche de Physique de l'État Solide, Univ. de Sfax (Tunisia); C. Poilane, D. Mounier, Lab. d'Acoustique de l'Univ. du Maine, CNRS, Univ. du Maine (France); M. Gargoury, Unité de Recherche de Physique de l'État Solide, Univ. de Sfax (Tunisia); P. Picart, Lab. d'Acoustique de l'Univ. du Maine, CNRS, Univ. du Maine (France) and École Nationale Supérieure d'Ingénieurs du Mans (France)
- 8413 12 **Overpressure wave interaction with droplets: time resolved measurements by laser shadowscopy** [8413-55]
P. Slangen, L. Aprin, F. Heymes, École des Mines d'Alès (France); L. Munier, E. Lapébie, Commissariat à l'Énergie Atomique (France); G. Dusserre, École des Mines d'Alès (France)
- 8413 13 **Detection of surface defects by means of dynamic speckles** [8413-12]
E. Nippolainen, I. Sidorov, A. A. Kamshilin, Univ. of Eastern Finland (Finland)
- 8413 14 **Development of a portable ESPI system for the analysis in situ of mural paintings** [8413-53]
E. Boaglio, J. Lamas, A. J. López, A. Ramil, Univ. da Coruña (Spain); L. Pereira, B. Prieto, B. Silva, Univ. de Santiago de Compostela (Spain)
- 8413 15 **Material characterization by laser speckle photometry** [8413-50]
B. Bendjus, U. Cikalova, J. Schreiber, Fraunhofer-Institut für Zerstörungsfreie Prüfverfahren (Germany)
- 8413 16 **Modulation transfer function determination of video capture cards by speckle patterns** [8413-39]
A. M. Pozo, J. J. Castro, M. Rubiño, Univ. de Granada (Spain)
- 8413 17 **Optical characterization of display screens by speckle-contrast measurements** [8413-28]
A. M. Pozo, J. J. Castro, M. Rubiño, Univ. de Granada (Spain)

- 8413 18 **Non-destructive testing of carbon reinforced plastics by means of phase retrieval** [8413-36]
M. Agour, C. Falldorf, C. von Kopylow, R. B. Bergmann, Bremer Institut für angewandte Strahltechnik GmbH (Germany)
- 8413 19 **Two-wavelength whole-field interferometry setup for thermal lens study** [8413-38]
D. M. Silva, Instituto de Pesquisas Energéticas e Nucleares (Brazil); E. A. Barbosa, Faculdade de Tecnologia de São Paulo (Brazil); N. U. Wetter, Instituto de Pesquisas Energéticas e Nucleares (Brazil)

APPLICATIONS IN NATURAL AND LIFE SCIENCES

- 8413 1A **3D digital holographic interferometry as a tool to measure the tympanic membrane motion** [8413-45]
M. del Socorro Hernández-Montes, S. Muñoz Solis, F. Mendoza Santoyo, Ctr. de Investigaciones en Óptica, A.C. (Mexico)
- 8413 1B **Endoscopic digital holography for measuring flows in opaque vessels** [8413-25]
L. Arévalo, V. Palero, Univ. de Zaragoza (Spain); J. Lobera, Ctr. Universitario de la Defensa de Zaragoza (Spain); M. P. Arroyo, Univ. de Zaragoza (Spain)
- 8413 1C **Analysis of mechanical behavior of implant-supported prostheses in the anterior maxilla: analysis by speckle pattern interferometry** [8413-48]
C. B. Corrêa, Univ. Estadual Paulista (Brazil); N. V. Ramos, J. Monteiro, Univ. do Porto (Portugal); L. G. Vaz, Univ. Estadual Paulista (Brazil); M. A. P. Vaz, Univ. do Porto (Portugal)
- 8413 1D **Laser speckle analysis of flow in presence of static scatterers** [8413-44]
M. Nemati, L. Wei, Technische Univ. Delft (Netherlands); M. G. Zeitouny, Philips Research (Netherlands); M. Stijnen, S. van Tuijl, HemoLab BV (Netherlands); N. Bhattacharya, H. P. Urbach, Technische Univ. Delft (Netherlands)
- 8413 1E **Computer aided techniques to support speckle laser experimental setup and online vision** [8413-26]
R. A. Braga, Jr., R. P. Godinho, J. R. A. Nozela, M. M. Silva, Univ. Federal de Lavras (Brazil)
- 8413 1F **Alternative protocols on dynamic speckle laser analysis** [8413-15]
R. R. Cardoso, Brazilian Bioethanol Science and Technology Lab. (Brazil); R. A. Braga, Univ. Federal de Lavras (Brazil); H. J. Rabal, Ctr. de Investigaciones Ópticas de La Plata (Argentina)
- 8413 1G **Laser speckle dynamic for monitoring fruits maturation** [8413-04]
R. Nassif, Lab. de Spectrométrie et Optique Laser, CNRS, Univ. de Brest (France) and Saint Joseph Univ. of Beirut (Lebanon); F. Pellen, Lab. de Spectrométrie et Optique Laser, CNRS, Univ. de Brest (France); C. Magné, Univ. de Brest (France); B. Le Jeune, G. Le Brun, Lab. de Spectrométrie et Optique Laser, CNRS, Univ. de Brest (France); M. Abboud, Saint Joseph Univ. of Beirut (Lebanon)
- 8413 1H **ζ -potential determination using a ZetaMeter-Dynamic Speckle assembly** [8413-17]
R. J. González-Peña, O. L. Sánchez-Muñoz, Univ. de València (Spain); R. A. Martínez-Celorio, Univ. de València (Spain) and Univ. de Guanajuato (Mexico); R. M. Cibrián, R. Salvador-Palmer, J. Salgado, Univ. de València (Spain)

- 8413 1I **Dynamic laser speckle applied to the analysis of maturation process of irradiated fresh fruits** [8413-33]
F. M. Vincitorio, N. Budini, C. Freyre, C. Mulone, M. P. Fiorucci, Univ. Tecnológica Nacional (Argentina); A. J. López, A. Ramil, Univ. da Coruña (Spain)
- 8413 1J **Laser power modulation with wavelength stabilization in multiple exposure laser speckle contrast analysis** [8413-47]
T. Smausz, D. Zölei, B. Hopp, Univ. of Szeged (Hungary)
- 8413 1K **Protocol for determining apparent Young's modulus of human teeth using laser speckle interferometry** [8413-22]
R. Salvador-Palmer, R. J. González-Peña, Univ. de València (Spain); R. A. Martínez-Celorio, Univ. de Guanajuato (Mexico); F. J. López, V. Paredes, R. Cibrián, Univ. de València (Spain)
- 8413 1L **Visualization of skin vibration induced by a bone-conduction device using a high speed digital holographic recording** [8413-10]
M. Leclercq, M. Karray, V. Isnard, Lab. d'Acoustique de l'Univ. du Maine, CNRS, Univ. du Maine (France); F. Gautier, P. Picart, Lab. d'Acoustique de l'Univ. du Maine, CNRS, Univ. du Maine (France) and École Nationale Supérieure d'Ingénieurs du Mans (France)

OTHER SPECKLE TECHNIQUES

- 8413 1M **Dynamic interference fringes generated by optical interferometer for laser speckle reduction** [8413-05]
Z. Tong, Vestfold Univ. College (Norway) and Norwegian Univ. of Science and Technology (Norway); A. M. Nadeem, X. Chen, Vestfold Univ. College (Norway)
- 8413 1N **Speckle reduction characterization of high power broad-area edge-emitting diodes lasers** [8413-46]
K. T. Tran Thi, Z. Tong, M. N. Akram, Vestfold Univ. College (Norway)
- 8413 1O **Episcopic coaxial illumination device for the simultaneous recording of the speckle signature in the spectrum and in the image of scattering reflective surfaces** [8413-34]
J. L. Fernández, J. C. López-Vázquez, C. Trillo, Á. F. Doval, Univ. de Vigo (Spain)
- 8413 1P **Measurement of the roughness surface using the normalized autocorrelation function of the fields of the texture of speckle pattern** [8413-35]
A. O. Pino, Univ. Tecnológica de Panamá (Panama); J. Pladellorens, Univ. Politècnica de Catalunya (Spain)

SPECKLE SENSORS AND SENSOR FUSION

- 8413 1Q **Influence of the refractive index of liquids in the speckle pattern of multimode fibers** [8413-42]
C. Galindez, M. Lomer, L. Rodríguez-Cobo, J. M. Lopez-Higuera, Univ. de Cantabria (Spain)
- 8413 1R **Speckle characterization in multimode fibers for sensing applications** [8413-40]
L. Rodríguez-Cobo, M. Lomer, C. Galindez, J. M. Lopez-Higuera, Univ. de Cantabria (Spain)

- 8413 1S **Self-mixing interference in fiber ring laser: application for displacement and velocity measurement** [8413-14]
M. Wang, W. Xia, Y. Zhao, D. Han, Nanjing Normal Univ. (China)

ADDITIONAL MANUSCRIPTS

- 8413 1T **The features of optimization of a phase retrieval technique in THz frequency range** [8413-57]
N. V. Petrov, A. N. Galiaskarov, T. Yu. Nikolaeva, V. G. Bespalov, National Research Univ. of Information Technologies (Russian Federation)

Author Index

Conference Committees

Conference Chairs

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Toyohiko Yatagai, Utsunomiya University (Japan)

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- 1 Speckle Theory and Fundamentals
Ángel F. Doval, Universidade de Vigo (Spain)
- 2 Speckle Pattern Photography and Digital Image Correlation I
Toyohiko Yatagai, Utsunomiya University (Japan)
- 3 Digital Holography and Holographic Interferometry I
Fernando Mendoza Santoyo, Centro de Investigaciones en Óptica (Mexico)
- 4 Applications in Life Sciences
Pierre Slangen, École des Mines d'Alès (France)
- 5 Speckle Pattern Interferometry
Armando Albertazzi, Jr., Universidade Federal de Santa Catarina (Brazil)
- 6 Metrological Characterization of Speckle Techniques
Małgorzata Kujawińska, Warsaw University of Technology (Poland)
- 7 Speckle Pattern Photography and Digital Image Correlation II
Antonio Baldi, Università di Cagliari (Italy)
- 8 Applications in Engineering I
Pablo D. Ruiz, Loughborough University (United Kingdom)
- 9 Data Retrieval in Speckle Metrology
Mitsuo Takeda, The University of Electro-Communications (Japan)

- 10 Digital Holography and Holographic Interferometry II
Pascal Picart, Université du Maine (France)
- 11 Applications in Engineering II
Erwin Hack, Electronics/Metrology/Reliability Laboratory, EMPA
(Switzerland)
- 12 Applications in Natural and Life Sciences
Pilar Arroyo, Universidad de Zaragoza (Spain)

Introduction

Twelve years have passed since *Interferometry in Speckle Light* was held in Lausanne (Switzerland). Though that first meeting—focused on the fundamentals and applications of the speckle phenomenon—was conceived as a single event, it stimulated the speckle community to gather in further occasions, and thus started the successful series of conferences continued by *Speckle Metrology 2003* in Trondheim (Norway); *Speckle 2006: Speckles, From Grains to Flowers* in Nîmes (France); and *Speckle 2010: Speckle Fields Forever* in Florianópolis (Brazil).

Speckle 2012: V International Conference on Speckle Metrology, which we are honoured to host in Vigo (Spain) from 10 to 12 September 2012, is thus far, the last step on this fascinating journey. Authors from many institutions and countries will present their latest research and share information of current advancements in the field, what will be an excellent opportunity to strengthen scientific bonds and international cooperation.

This volume contains the proceedings papers corresponding to keynote lectures, oral and poster communications contributed by the participants in *Speckle 2012*. Its contents have been arranged by subject matter into the following ten sections that cover the topics of the conference:

- Speckle Theory and Fundamentals
- Speckle Pattern Photography and Digital Image Correlation
- Speckle Pattern Interferometry
- Digital Holography and Holographic Interferometry
- Data Retrieval in Speckle Metrology
- Metrological Characterization of Speckle Techniques
- Applications in Engineering
- Applications in Natural and Life Sciences
- Other Speckle Techniques
- Speckle Sensors and Sensor Fusion

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We hope that the readers will find in these proceedings useful information for their research and that they will enjoy this look on the random side of light.

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