



50 YEARS OF NONLINEAR OPTICS NLO 50 INTERNATIONAL SYMPOSIUM

8-10 October 2012. Barcelona, Spain



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A GOLDEN JUBILEE

The year 2012 marks the 50th anniversary of the seminal paper by Nicolaas Bloembergen and co-workers, which had a profound impact on the field of Nonlinear Optics and paved the way for a new era in science and technology.

The discovery, understanding and manipulation of nonlinear optical phenomena have led to numerous scientific and technological advances, not only in photonics, but also in the broader fields of knowledge in physics, chemistry, biology, and medicine. Many areas of research and innovation, from laser technology to high-intensity physics, photochemistry, frequency metrology, and quantum information science have been made possible through the exploitation of nonlinear optical effects.

In celebration of this momentous occasion, there will be a special symposium, NLO 50, to be held during 8-10 October 2012, in Barcelona, Spain. The symposium also coincides with the commemoration of the 10th anniversary of ICFO-The Institute of Photonics Sciences, Barcelona, the first international institute in Spain dedicated to the advancement of Photonics science and technology.



NLO 50

50 Years of Nonlinear Optics
International Symposium





50 YEARS OF NONLINEAR OPTICS NLO 50 INTERNATIONAL SYMPOSIUM

8-10 October 2012. Barcelona, Spain

PLENARY SPEAKERS

Nicolaas Bloembergen, Nobel Laureate
Charles H. Townes, Nobel Laureate

SYMPOSIUM CHAIR

Majid Ebrahim-Zadeh, ICFO (Spain)

KEYNOTE SPEAKERS

R. W. Boyd, University of Rochester (USA)
R. L. Byer, Stanford University (USA)
F. Krausz, Max Planck Institute (Germany)
P. F. Moulton, Q-Peak, Inc. (USA)
K. J. Vahala, Caltech, USA
E. W. Van Stryland, CREOL (USA)
X. Xie, University of Harvard (USA)

PROGRAM COMMITTEE

J. Biegert, ICFO (Spain)
G. Cerullo, Politecnico di Milano (Italy)
S. Chaitanya Kumar, ICFO (Spain)
H. Ito, University of Tohoku and RIKEN (Japan)
J. D. Kafka, Spectra-Physics (USA)
F. Laurell, Royal Institute of Technology (Sweden)
V. Petrov, Max-Born-Institute (Germany)
L. Roso, Centro de Laseres Pulsados, CLPU (Spain)
P. Schunemann, BAE Systems (USA)
M. Sheik-Bahae, University of New Mexico (USA)
I. T. Sorokina, University of Trondheim (Norway)
T. Taira, Institute of Molecular Sciences (Japan)
K. L. Vodopyanov, Stanford University (USA)

Monday, 8th October

★	07.45-08.45		Material Pickup On-Site Registration (ICFO-The Institute of Photonic Sciences)
★	08.45-09.00		Welcome Majid Ebrahim-Zadeh <i>ICFO-The Institute of Photonic Sciences (Spain)</i>
●	09.00-09.45	PL.1	The early years 1960-1962 of Nonlinear Optics Nicolaas Bloembergen, Nobel Laureate
●	09.45-10.30	MK.1	Nonlinear optics: Moving from the laboratory to applications P. F. Moulton <i>Q-Peak, Inc., (USA)</i>
●	10.30-10.45	MO.1	X-ray nonlinear Compton scattering M. Fuchs, M. Trigo, J. Chen, S. Ghimire, M. Kozina, M. Jiang, T. Henighan, C. Bray, G. Ndabashimiye, S. Schwartz, Y. Feng, S. Boutet, G. Williams, M. Messerschmidt, M. Seibert, S. Moeller, J. B. Hastings, D. A. Reis <i>PULSE Institute (USA), SLAC National Accelerator Laboratory (USA), University of Hamburg (Germany), Stanford University (USA)</i>
●	10.45-11.00	MO.2	Triple photons: a new chapter of nonlinear and quantum optics A. Borne, A. Dot, B. Boulanger, P. Segonds, C. Félix, K. Bencheikh, J. A. Levenson <i>Université Joseph Fourier (France), Centre National de la Recherche Scientifique (France)</i>
	11.00-11.30		Coffee Break Benoit Boulanger, Université Joseph Fourier (France) – Presider
●	11.30-12.00	MI.1	Efficient frequency conversion between light and terahertz waves H. Ito, S. Hayashi, H. Minamide <i>RIKEN ASI (Japan)</i>
●	12.00-12.15	MO.3	Widely tunable mid-Infrared frequency comb synthesizer A. Ruehl, A. Gambetta, I. Hartl, M.E. Fermann, K.S.E. Eikema, M. Marangoni <i>VU University (Netherlands), Politecnico di Milano (Italy), IMRA America Inc. (USA)</i>
●	12.15-12.30	MO.4	Cascaded sub-harmonic and supercontinuum generation of octave-spanning frequency combs in mid-infrared A. Marandi, C. W. Rudy, R. L. Byer, K. L. Vodopyanov <i>Stanford University (USA)</i>
●	12.30-12.45	MO.5	Theoretical and experimental study of two-crystal, continuous-wave, singly-resonant optical parametric oscillator G. K. Samanta, M. Ebrahim-Zadeh <i>Physical Research Laboratory (India), ICFO-Institut de Ciències Fotoniques (Spain), Institutio Catalana de Recerca i Estudis Avançats (ICREA) (Spain)</i>
●	12.45-13.00	MO.6	Dynamic soliton propagation in Weber photonic lattices P. Rose, F. Diebel, M. Boguslawski, C. Denz <i>University of Muenster (Germany)</i>



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Monday, 8th October

	13.00-14.00		Lunch Break
●	14.00-14.15	MO.7	Multiphoton imaging with low cost 30 fs laser system tunable around 1 micron B. Resan, R. Aviles-Espinosa, S. Kurmulis, J. Licea-Rodriguez, F. Brunner, A. Rohrbacher, H. Ammann, P. Loza-Alvarez, K. J. Weingarten <i>Time-Bandwidth Products AG (Switzerland), ICFO-Institute of Photonic Sciences (Spain), Department of Optics, CICESE (México)</i>
●	14.15-14.30	MO.8	Quantitative comparison between forward and epi-detected polarization SHG imaging of collagen S. Psilodimitrakopoulos, A. Lopez Rodriguez, D. Artigas, P. Loza-Alvarez <i>ICFO-Institut de Ciències Fotoniques (Spain), Universitat Politècnica de Catalunya (Spain)</i>
★	14.30-15.00		NLO is Magic C. Florensa
★	15.00-16.00		ICFO Lab Tours
	16.00-16.30		Coffee Break
●	16.30-17.00		ICFO 10 Irina T. Sorokina, University of Trondheim (Norway) – Presider
●	17.00-17.45	MK.2	Nonlinear Optics at Fifty: Tunable Sources from the IR to X-rays R. L. Byer <i>Stanford University (USA)</i>
●	17.45-18.00	MO.9	Few-cycle mid-IR pulses from an ultra-broadband degenerate optical parametric oscillator M. W. Haakestad, N. Leindecker, A. Marandi, K. L. Vodopyanov <i>Stanford University (USA), FFI - Norwegian Defence Research Establishment (Norway)</i>
●	18.00-18.15	MO.10	Interferometrically-coupled, dual-wavelength femtosecond optical parametric oscillator V. Ramaiah-Badarla, A. Esteban-Martin, M. Ebrahim-Zadeh <i>ICFO-Institut de Ciències Fotoniques (Spain), Institutio Catalana de Recerca i Estudis Avancats (ICREA) (Spain)</i>
	18.15-20.00		Free
★	20.00-23.00		Conference Banquet <i>Gran Hotel Rey Don Jaime, Castelldefels</i>

● Plenary

● Keynote

● Invited

● Oral

● Poster

Tuesday, 9th October

★	08.45-09.00		Briefing Majid Ebrahim-Zadeh <i>ICFO-The Institute of Photonic Sciences (Spain)</i>
●	09.00-09.30	PL.2	Origins of the laser Charles H. Townes, Nobel Laureate
●	09.30-10.15	TK.1	The quest of bioimaging with nonlinear optics X. Xie <i>Harvard University (USA)</i>
●	10.15-10.45	TI.1	Nonlinear optics of Cr-doped II-VI mid-IR few cycle oscillators E. Sorokin, N. Tolstik, I. T. Sorokina <i>Vienna University of Technology (Austria), Norwegian University of Science and Technology (Norway)</i>
●	10.45-11.00	TO.1	Photon-energy scalable enhancement-cavity based high-order harmonic generation I. Pupeza, S. Holzberger, T. Eidam, H. Carstens, D. Esser, J. Weitenberg, P. Rußbüldt, J. Limpert, Th. Udem, A. Tünnermann, T. W. Hänsch, A. Apolonski, E. Fill, F. Krausz <i>Max-Planck-Institut für Quantenoptik (Germany), LMU München (Germany), Institut für Angewandte Physik (Germany), Fraunhofer-Institut für Lasertechnik (Germany), Lehrstuhl für Lasertechnik (Germany)</i>
	11.00-11.30		Coffee Break+Exhibits Jens Biegert, ICFO-The Institute of Photonic Sciences (Spain) – Presider
●	11.30-12.15	TK.2	Attosecond physics: the first decade F. Krausz <i>Max-Planck-Institut für Quantenoptik (Germany), Ludwig-Maximilians-Universität München (Germany)</i>
●	12.15-12.30	TO.2	Three-cycle CEP-stable pulses in the mid-IR M. Hemmer, M. Baudisch, A. Thai, J. Biegert <i>ICFO – Institut de Ciències Fotoniques (Spain), ICREA - Institució Catalana de Recerca i Estudis Avançats (Spain)</i>
●	12.30-12.45	TO.3	Sub-5-fs multi-TW optical parametric chirped pulse amplification system development D. Rivas, G. Marcus, X. Gu, J. Mikhailova, A. Buck, T. Wittmann, C. M. S. Sears, J. Xu, D. Herrmann, V. Pervak, F. Krausz, L. Veisz <i>Max-Planck-Institut für Quantenoptik (Germany), Ludwig-Maximilians-Universität München (Germany)</i>
●	12.45-13.00	TO.4	Octave-spanning, multi-mJ, optical parametric chirped pulse amplifier at 3 kHz repetition rate H. Fattahi, M. Ueffing, Y. Deng, A. Schwarz, V. Pervak, Z. Major, T. Metzger, F. Krausz <i>Max-Planck-Institut für Quantenoptik (Germany), Ludwig-Maximilians-Universität München (Germany), TRUMPF Scientific Lasers GmbH + Co. KG (Germany)</i>
	13.00-14.00		Lunch Break+Exhibits

Tuesday, 9th October

●	14.00-16.00		Posters + ICFO Lab Tours + Exhibits
	16.00-16.30		Coffee Break+Exhibits
			Giuseppe Leo, University of Paris Diderot (France) – Presider
●	16.30-17.15	TK.3	Nonlinear optics in high-Q micro-resonators K. J. Vahala <i>California Institute of Technology (USA)</i>
●	17.15-17.30	TO.5	Demonstration of second-harmonic generation using π -quasi-phasematching in a GaAs microdisk P. S. Kuo, G. S. Solomon <i>National Institute of Standards & Technology(USA), University of Maryland (USA)</i>
●	17.30-17.45	TO.6	AlGaAs micropillars for THz DFG S. Mariani, A. Andronico, I. Favero, S. Ducci, Y. Todorov, C. Sirtori, M. Kamp, J. Claudon, J. M. Gérard, G. Leo <i>Univ. Paris Diderot (France), Univ. at Würzburg (Germany) CEA, INAC (France)</i>
●	17.45-18.00	TO.7	Resonant non-linear frequency shifting in THz QCLs C. Sirtori, P. Cavalié, J. Madéo, J. Freeman, N. Jukam, J. Maysonnave, K. Maussang, J. Mangeney, H. E. Beere, D. A. Ritchie, J. Tignon, S. S. Dhillon <i>Univ. Paris-Diderot (France), Ecole Normale Supérieure, CNRS (France), University of Cambridge (UK)</i>
●	18.00-18.15	TO.8	Semiconductor source of entangled photons at room temperature A. Orioux, A. Eckstein, A. Lemaître, P. Filloux, T. Coudreau, P. Milman, A. Keller, I. Favero, G. Leo and S. Ducci <i>Université Paris Diderot (France), CNRS-UPR20 (France), Université Paris Sud (France)</i>
●	18.15-18.30	TO.9	Classical and quantum nonlinear optics in silicon integrated devices S. Azzini, D. Grassani, M. Galli, L. C. Andreani, M. Sorel, M. J. Strain, L. G. Helt, J. E. Sipe, M. Liscidini, D. Bajoni <i>Università di Pavia (Italy), University of Glasgow (UK), University of Toronto (Canada), Università di Pavia (Italy)</i>
●	18.30-18.45	TO.10	Experiment enhancement of second harmonic from coaxial apertures embedded into lithium niobate E. Barakat, M. Bernal, F. Baida <i>Institut FEMTO-ST (France)</i>
●	18.45-19.00	TO.11	Whispering gallery optical parametric oscillators I. Breunig, T. Beckmann, Ch. S. Werner, K. Buse <i>University of Freiburg (Germany, Fraunhofer Institute of Physical Measurement Techniques (Germany)</i>
	19.00-21.00		Free
★	21.00-23.00		Conference Dinner <i>Restaurante 5J Las Arenas, Barcelona</i>

● Poster Session (14.00-16.00) Tuesday, 9th October

- TP.SK1** **Recent progress in stoichiometric lithium tantalate**
S. Kurimura, H. H. Lim, I. Shoji, N. Mio, S. Takeuchi
National Institute for Materials Science (NIMS) (Japan), Chuo Univ. (Japan), Univ. of Tokyo (Japan), Hokkaido Univ. (Japan), Osaka Univ. (Japan)
- TP.SK2** **High efficiency nonlinear waveguide in lithium niobate**
S. Kurimura, Y. Muranaka, K. Sugiura, R. Kou, H. Nakajima
National Institute for Materials Science (NIMS) (Japan), Waseda Univ. (Japan)
- TP.NT** **Supercontinuum generation in mid-IR using chalcogenide nonlinear fiber**
N. Tolstik, E. Sorokin, I. T. Sorokina
Vienna University of Technology (Austria), Norwegian University of Science and Technology (Norway)
- TP.SD1** **Enhanced beam steering in nonlinear waveguide arrays**
S. Droulias, Y. Lahini, Y. Kominis, P. Papagiannis, Y. Bromberg, K. Hizanidis, Y. Silberberg
National Technical University of Athens (Greece), University of Patras (Greece), The Weizmann Institute of Science (Israel)
- TP.OF** **OPO pulse elongation using separate pump return mirror**
Ø. Farsund, G. Rustad
FFI (Norwegian Defence Research Establishment) (Norway)
- TP.GR** **Investigation of how non-collinear phase matching can improve beam quality from optical parametric oscillators**
G. Rustad
FFI (Norwegian Defence Research Establishment) (Norway)
- TP.JP1** **Non-linear effects generation with on-axis damman gratings**
J. Pérez, O. Mendoza-Yero, G. Mínguez, C. Romero, J.R. Vázquez, J. Láncis
Universidad Jaume I (Spain), Universidad de Salamanca (Spain)
- TP.MV** **High-repetition-rate subharmonic femtosecond OPO**
M. Vainio
University of Helsinki (Finland), Centre for Metrology and Accreditation (Finland)
- TP.MA** **Cherenkov-type second- and third-harmonic generation in random $\chi(2)$ media**
M. Ayoub, P. Roedig, J. Imbrock, C. Denz
University of Muenster (Germany)
- TP.SK** **Integration of tunable waveguide bragg gratings in Lithium Niobate by direct femtosecond laser writing**
S. Kroesen, R. Heger, W. Horn, C. Denz
University of Muenster (Germany)
- TP.HR** **Nonlinear Cherenkov radiation in anomalous dispersive medium**
H. Ren, X. Chen
Shanghai Jiao Tong University (China)
- TP.ES1** **Generation and nonlinear-optical conversion of intracavity absorption signal in modelocked lasers**
E. Sorokin, N. Tolstik, V. L. Kalashnikov, I. T. Sorokina
Vienna University of Technology (Austria), Norwegian University of Science and Technology (Norway)

● Poster Session (14.00-16.00) Tuesday, 9th October

- TP.QZ** **Efficient mid-infrared imaging by frequency upconversion**
Q. Zhou, K. Huang, X. Gu, H. Pan, E. Wu, H. Zeng
East China Normal University (China)
- TP.AH** **Novel pump-probe x-scan technique for measuring nonlinear absorption and refraction**
A. Hamad, T. Smith
Southern Illinois University Edwardsville (USA)
- TP.AB** **Broadband, coherent mid-IR supercontinuum generation using highly nonlinear tapered photonic crystal fibers**
A. B. Salem, R. Cherif, M. Zghal
University of Carthage (Tunisia)
- TP.DD** **Optical parametric oscillator based photoacoustic detection of hydrogen cyanide for bio-medical applications**
D.D. Arslanov, M.P.P. Castro, N.A. Creemers, M. Spunei, J. Mandon, S.M. Cristescu, P. Merkus, F.J.M. Harren
Radboud University Nijmegen (Netherlands), University of State of North Fluminense Darcy Ribeiro (Brazil), Radboud University Nijmegen Medical Centre (Netherlands)
- TP.DK** **Characterization and optimization of mid-IR specialty fibers for continuum generation and ultrashort pulse delivery**
D. Klimentov, V.L. Kalashnikov, V.V. Dvoyrin, I. T. Sorokina
Norwegian Univ of Science and Technology (Norway), TU Vienna (Austria)
- TP.FL** **Nonlinear optics in ultra high peak power titanium sapphire laser systems**
F.Lureau, S. Laux, C. Radier, O. Chalus, G. Matras, O. Casagrande, C.Derycke, F. Caradec, C. Simon-Boisson
Thales Optronique SAS (France)
- TP.JM** **Sensing in life science with optical parametric oscillators**
J. Mandon, D. Arslanov, S.M. Cristescu, F.J.M. Harren
Radboud University Nijmegen (Netherlands)
- TP.VR1** **Reconciliation of Cherenkov second harmonic generation theory in quadratic media**
V. Roppo, Y. Sheng, K. Kalinowski, W. Krolikowski
Australia National University (Australia), C. M. Bowden Research Center (USA)
- TP.VR2** **Inhomogeneous second harmonic waveguiding**
V. Roppo, M. A. Vincenti, D. de Ceglia, C. Cojocaru, M. Scalora
C. M. Bowden Research Center (USA), Australia National University (Australia), Aegis Technologies Inc., (USA), Universitat Politècnica de Catalunya (Spain)
- TP.ES2** **Analytical theory for dissipative soliton high-energy mid-IR modelocked lasers**
E. Sorokin, V. L. Kalashnikov, N. Tolstik, I. T. Sorokina
Vienna University of Technology (Austria), Norwegian University of Science and Technology (Norway)
- TP.SE** **Diffraction-induced laser pulse splitting in photonic crystals: polarization properties, selective compression and self-focusing**
S. E. Svyakhovskiy, A. I. Maydykovskiy, V. B. Novikov, V. O. Kompanets, S. V. Chekalin, A. A. Skorynin, V. A. Bushuev, B. I. Mantsyzov, T. V. Murzina
Lomonosov Moscow State University (Russia)



● Poster Session (14.00-16.00) Tuesday, 9th October

- TP.SV** **Second harmonic generation from chiral gold nanoparticles**
S. Vandendriessche, V. K. Valev, T. Verbiest
KU Leuven (Belgium)
- TP.YF** **Nonlinear optics for laser guide star**
Y. Feng, L. Zhang, J. Wang, J. Hu
Chinese Academy of Sciences (China)
- TP.JP2** **Scale-free optics in programmed dipolar glasses**
J. Parravicini, A. J. Agranat, C. Conti, E. Del Re
Università di Roma "La Sapienza" (Italy), Università de L'Aquila (Italy), Hebrew University of Jerusalem (Israel)
- TP.AP** **Parametric solitons in quadratic media**
A. P. Sukhorukov
Lomonosov Moscow State University (Russia)
- TP.IA** **Optical second harmonic generation at surfaces, interfaces and nanostructures**
I.A. Kolmychek, A.I. Maydykovskiy, T.V. Murzina, O.A. Aktsipetrov
Moscow State University (Russia)
- TP.MI** **Terahertz-wave detection with nonlinear optical up-conversion exceeding a cryogenic thermal detector**
H. Minamide, S. Hayashi, F. Qi, K. Nawata
RIKEN ASI (Japan)
- TP.AT** **Narrow-band, mid-IR, seeded optical parametric generator based on non-critical CdSiP₂ pumped by 120-ps, 1064 nm pulses**
A. Tyazhev, F. Pirzio, A. Agnesi, G. Reali, V. Petrov, G. Marchev, P. G. Schunemann, K. T. Zawilski
Università di Pavia (Italy), BAE Systems, Inc., (USA)
- TP.MZ** **Tilted fibre Bragg assisted in situ characterization of layer-by-layer deposition of single-wall carbon nanotube thin film for nonlinear applications**
M. Z. Alam, M. Jakubinek, B. Simard, J. Albert
Carleton Univ., (Canada), National Research Council Canada (Canada)

Wednesday, 10th October

★	08.45-09.00		Briefing Majid Ebrahim-Zadeh <i>ICFO-The Institute of Photonic Sciences (Spain)</i>
●	09.00-09.45	WK.1	Fifty great years: the development of the field of nonlinear optics R. W. Boyd <i>University of Rochester (USA), University of Ottawa (Canada)</i>
●	09.45-10.00	WO.1	Non-oxide nonlinear crystals and direct frequency conversion to the mid-IR above 4 μm with near 1 μm pump lasers V. Petrov <i>Max Born Institute (Germany)</i>
●	10.00-10.15	WO.2	A cavity-dumped optical parametric oscillator generating ultrafast 650-nJ pulses T. P. Lamour, D. T. Reid <i>Heriot-Watt University (UK)</i>
●	10.15-10.30	WO.3	Frequency-modulation-mode-locked singly-resonant optical parametric oscillator K. Devi, S. Chaitanya Kumar, M. Ebrahim-Zadeh <i>ICFO-Institut de Ciències Fotoniques (Spain), Institutio Catalana de Recerca i Estudis Avançats (ICREA) (Spain)</i>
●	10.30-11.00	WI.1	Mechanically twinned quartz for UV QPM S. Kurimura, M. Harada, K. Muramatsu, M. Ueda, M. Adachi, T. Yamada, T. Ueno <i>National Institute for Materials Science (NIMS) (Japan)</i>
	11.00-11.30		Coffee Break Fredrik Laurell, Royal Institute of Technology (Sweden) – Presider
●	11.30-12.15	WK.2	Nondegenerate 2-photon absorption spectroscopy and detection E. Van Stryland, T. Ensley, H. S. Pattanaik, D. A. Fishman, S. Webster, D. J. Hagan <i>University of Central Florida (USA)</i>
●	12.15-12.30	WO.4	0.5J-OPO by using 10mm-thick bulk PPMgLN T. Taira, H. Ishizuki <i>Institute of Molecular Sciences (Japan)</i>
●	12.30-13.00	WI.2	Optical parametric devices for airborne and spaceborne lidar applications A. Fix, M. Wirth, G. Ehret <i>Institut für Physik der Atmosphäre (Germany)</i>
	13.00-14.00		Lunch Break
●	14.00-16.00		Poster Session NLO Forum, 2012 and Beyond
	16.00-16.30		Coffee Break



Wednesday, 10th October

Sunao Kurimura, National Institute of Material Science (Japan) – Presider

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| ● | 16.30-17.00 | WI.3 | <p>Some historical details about the seventies: beginning of NLO in Spain, and work with J. Ducuing in Paris.
And recent results about nonlinear effects in random NL crystals and in absorbing and gain-modulated materials.
R. Vilaseca
<i>Universitat Politècnica de Catalunya (UPC) (Spain)</i></p> |
| ● | 17.00-17.15 | WO.5 | <p>Spatial control of second-harmonic light from a disordered structure
F. J. Rodríguez, C. Yao, J. Martorell
<i>ICFO-Institut de Ciències Fotoniques (Spain)</i></p> |
| ● | 17.15-17.30 | WO.6 | <p>Type I and type II SHG of conically refracted beams
A. Turpin, Y. V. Loiko, T. K. Kalkandjiev, J. Mompart, J. Trull, C. Cojocar
<i>Universitat Autònoma de Barcelona (Spain), Conerefringent Optics SL (Spain), Universitat Politècnica de Catalunya (Spain)</i></p> |
| ● | 17.30-17.45 | WO.7 | <p>Nonlinear light bullets stabilized by nonlinear losses
M. A. Porras
<i>Universidad Politécnica de Madrid (Spain)</i></p> |
| ● | 17.45-18.00 | WO.8 | <p>Frequency up-conversion based single photon, mid-IR spectral imaging with 20% quantum efficiency
P. Tidemand-Lichtenberg, J. S. Dam, C. Pedersen
<i>Technical University of Denmark (Denmark)</i></p> |
| ★ | 18.00-18.15 | | Presentations |
| ★ | 18.15-18.30 | | Farewell/Closing |

● Poster Session (14.00-16.00) Wednesday, 10th October

- WP.KH** **Efficient mid-infrared photon generation at 3.16 μm by coherent frequency downconversion**
K. Huang, Q. Zhou, X. Gu, H. Pan, E. Wu, H. Zeng
East China Normal University (China)
- WP.MK** **Tunnelling of holes in oxide-semiconductor is confirmed by second-harmonic generation**
M. K. Vanbel, V.V. Afanas'ev, C. Adelman, V.K. Valev, T. Verbiest
KU Leuven (Belgium), IMEC (Belgium)
- WP.NA** **Cherenkov high-order harmonic generation by multistep cascading in $\chi(2)$ nonlinear photonic crystal**
N. An, X. Chen
Shanghai Jiao Tong University (China)
- WP.LM** **Effects of nonlinear phase modulation on low-conversion four-wave mixing bragg scattering**
L. Mejling, C. J. McKinstrie, K. Rottwitt
University of Denmark (Denmark), Bell Laboratories (USA)
- WP.BW** **Modelling of thermally-induced modal instability in large mode area fibre amplifiers**
B. Ward, I. Dajani, C. Robin
US Air Force Academy (USA), US Air Force Laboratory (USA)
- WP.ME** **Optoelectronic tweezers by nonlinear field-enhancement in photorefractive Bismuth Silicon Oxide**
M. Esseling, H. Futterlieb, C. Denz
University of Münster (Germany)
- WP.YK** **Dissipative soliton routing and acceleration in nonlinear optical lattices**
Y. Kominis, S. Droulias, P. Papagiannis, K. Hizanidis
National Technical University of Athens (Greece), University of Patras (Greece)
- WP.DO** **Surface plasmon total internal reflection from the nonlinear-induced inhomogeneity**
D.O. Ignatyeva, A.P. Sukhorukov
Lomonosov Moscow State University (Russia)
- WP.SC** **Ultrashort pulsating and chaotic solitons in mode-locked fiber lasers**
S. C. V. Latas, M. F. S. Ferreira
University of Aveiro (Portugal)
- WP.QS** **Cascaded parametric down conversion in a single periodically poled MgO:LiNbO₃**
Q. Sun, Y. Chen, X. Chen
Shanghai Jiao Tong University (China)
- WP.YZ** **Colored conical emission in $\chi(2)$ periodically modulated nonlinear medium**
Y. Zheng, X. Chen
Shanghai Jiao Tong University (China)
- WP.AR** **Analysis of data-quality in all-optical wavelength-conversion**
Aravind PA, D. Venkitesh
Indian Institute of Technology Madras (India)
- WP.VF** **Shaken granular lasers**
V. Folli, A. Puglisi, L. Leuzzi, C. Conti
ISC-CNR, Unit of University Sapienza (Italy), University Sapienza (Italy), IPCF-CNR, Unit Kerberos of University Sapienza (Italy)



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- WP.SG** **Shock waves in disorder media**
S. Gentilini, N. Ghofraniha, V. Folli, E. DelRe, C. Conti
ISC-CNR University "La Sapienza" (Italy), IPCF-CNR University "La Sapienza" (Italy), University "La Sapienza" (Italy)
- WP.PK1** **Few-cycle pulse trains induced manipulation of three level atoms**
P. Kumar, A. K. Sarma
Indian Institute of Technology Guwahati (India)
- WP.KW** **Nonlinear evolution equation for spatio-temporal propagation**
K. Wagner, S. Blair
Univ. Colorado (USA), Univ. Utah (USA)
- WP.AZ** **The numerical complex approach to analysis of nonlinear propagation of light in photorefractive media**
A. Ziółkowski
West Pomeranian University of Technology (Poland)
- WP.TV** **Supercontinuum generation with chirped femtosecond pulse**
T. V. Alencar, L. M. Malard, A. M. de Paula
UFMG (Brazil)
- WP.CB** **Mode-locked pulses by engineering microresonator based optical comb coherence**
C. Bao, X. Xiao, C. Yang
Tsinghua University (China)
- WP.MW** **Dynamics of photorefractive grating in a semi-insulating multiple quantum well structure under high electric field**
M. Wichtowski, A. Ziółkowski, B. Jabłoński, W. Karwecki, E. Weinert-Rączka
West Pomeranian University of Technology in Szczecin (Poland)
- WP.JM** **Precision measurement of doppler shifts inspired by weak values**
J. Martinez-Rincon, G. I. Viza, G. A. Howland, J. C. Howell, I. Shomroni, B. Dayan, H. Frostig
University of Rochester (USA), Weizmann Institute of Science (Israel)
- WP.HA** **Nonlinear index of refraction of Vanadium Hexacarbonyl nanoparticles produced by laser ablation**
H. A. Garcia, V. S. de Oliveira, A. G. Bezerra-Jr, I. L. Graff, N. Mattoso, W. H. Schreiner, C. B. de Araújo
Universidade Federal de Pernambuco (Brazil), Universidade Federal do Paraná (Brazil), Universidade Tecnológica Federal do Paraná (Brazil)
- WP.PT** **Ultrafast NLO studies of Phthalocyanines, Porphycenes and Corroles for photonic applications**
P. T. Anusha, D. Swain, S. Hamed, S. Venugopal-Rao
Advanced Centre for Research in High Energy Materials (ACRHEM) (India), University of Hyderabad (India)
- WP.WB** **Study of plasmonic effects on the magneto-optical response in clusters of magnetic and plasmonic nanoparticles**
W. Brullot, T. Verbiest
KU Leuven (Belgium)



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- WP.PK2** **Ultrafast coherent population oscillations in Na-atoms**
P. Kumar, A. K. Sarma
Indian Institute of Technology Guwahati (India)
- WP.CK** **Self pulsation in a ring resonator based on nonlinear plasmonic waveguides**
C. Kusko
Institute of Microtechnology (Romania)
- WP.AA** **The effect of concentration of chromophores on two-photon absorption cross section**
A. Ajami, W. Husinsky, R. Liska, Z. Li
Vienna University of Technology (Austria)
- WP.AK** **Pulse compression and splitting in Silicon-on-insulator nanowire**
A. Kumar
Indian Institute of Technology (India)
- WP.KU** **Up to 20-times pulse repetition rate multiplication in synchronously intracavity pumped ring OPO**
A. Zavadilová, V. Kubeček, J. Šulc
Czech Technical University in Prague (Czech Republic)



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