

20th International Laser Physics Workshop (LPHYS'11)

July 11–15, 2011, Sarajevo, Bosnia and Herzegovina

PROGRAM



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**20th International Laser Physics Workshop
(LPHYS'11)
July 11–15, 2011, Sarajevo, Bosnia and Herzegovina**

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*A.M. Prokhorov General Physics Institute, Russian Academy of Sciences
(RAS), Moscow, Russia
The University of Sarajevo, Sarajevo, Bosnia and Herzegovina
Academy of Sciences and Arts of Bosnia and Herzegovina
The international journal Laser Physics
The international journal Laser Physics Letters
International Laser Center, Moscow State University, Moscow, Russia
National Research Nuclear University MEPhI, Moscow, Russia*

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Background

The twentieth annual International Laser Physics Workshop (LPHYS'11) will be held from July 11 to July 15, 2011, in the Hotel Hollywood, Congress Center, and Hotels Ilidza, Sarajevo, Bosnia and Herzegovina. LPHYS'11 continues a series of Workshops held in Dubna 1992, Dubna/Volga river tour 1993, New York 1994, Moscow/Volga river tour (jointly with NATO SILAP Workshop) 1995, Moscow 1996, Prague 1997, Berlin 1998, Budapest 1999, Bordeaux 2000, Moscow 2001, Bratislava 2002, Hamburg 2003, Trieste 2004, Kyoto 2005, Lausanne 2006, León (Mexico) 2007, Trondheim 2008, Barcelona 2009, and Foz do Iguaçú 2010. The total number of participants is expected to be about 500. In the past, participation was typically from over 30 countries.

Proceedings

The Workshop accepted reports (plenary, invited, and contributed) could be published in two issues of the international journal Laser Physics, 2012 (vol. 22). The total length of a manuscript, including figures, tables and references, is limited to twenty-five pages. The rules of the manuscript preparation can be found on the Laser Physics pages of the web site: www.lasphys.com.

The pdf files of the manuscripts for the Proceedings, to be published in Laser Physics, are to be sent to the following e-mail address:

lphys11@lasphys.com

The submitted manuscripts should contain your e-mail address and the number of your report according to the Program of the Workshop. At the moment of sending your manuscript by e-mail, or better a week earlier, the authors are asked to send the Transfer of Copyright Agreement by an Express Mail to the following address:

Prof. Igor V. Yevseyev
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31, Kashirskoe Shosse
Moscow 115409
Russia

The pdf files of your manuscripts are to be sent not later than November 1, 2011.

All manuscripts undergo the standard reviewing procedure, after which the decision is taken on their acceptance or rejection.

**The possible rapid publication of your scientific results in the journal
Laser Physics Letters**

The Steering Committee of LPHYS'11 would like to bring your attention to the following possibility. If you feel that your article deserves super-rapid publication, you can send it only by e-mail staffeditor@lasphys.com to another journal, the journal Laser Physics Letters. In case your manuscript receives positive reports of referees, its on-line version will appear two weeks after the acceptance of the paper. The information concerning your manuscript submission and instructions for manuscript preparation for the journal Laser Physics Letters can be found on:

<http://www.lasphys.com>

Meeting Format and Location of the Events

Welcome Remarks	July 11	09.15-09.45	Large Hall, Hotel Hollywood
Welcome Party	July 11	19.00-23.00	Hotel Ilidza
Conference Dinner	July 13	19.00-23.00	Hotel Hollywood
Closing Remarks	July 15	14.00-14.15	Large Hall, Hotel Hollywood
Plenary Sessions (PS)			
	July 11	09.45-10.30	Large Hall, Hotel Hollywood
	July 12	09.00-09.45	Large Hall, Hotel Hollywood
	July 12	09.45-10.30	Large Hall, Hotel Hollywood
	July 13	09.00-09.45	Large Hall, Hotel Hollywood
	July 13	09.45-10.30	Large Hall, Hotel Hollywood
	July 14	09.00-09.45	Large Hall, Hotel Hollywood
	July 14	09.45-10.30	Large Hall, Hotel Hollywood
Seminar 1			
	July 11	11.00-18.50	Hall # 3, Hotel Hollywood
	July 12	11.00-18.50	Hall # 3, Hotel Hollywood
	July 13	11.00-18.50	Hall # 8, Hotel Hollywood
	July 14	11.00-18.50	Hall # 3, Hotel Hollywood
	July 15	09.00-12.45	Hall # 3, Hotel Hollywood
Seminar 2			
	July 11	11.00-18.50	Hall # 1, Hotel Hollywood
	July 12	11.00-18.50	Hall # 1, Hotel Hollywood
	July 13	11.00-18.50	Hall # 7, Hotel Hollywood
	July 14	11.00-18.50	Hall # 1, Hotel Hollywood
	July 15	09.00-12.45	Hall # 1, Hotel Hollywood
	July 15	14.30-18.50	Hall # 1, Hotel Hollywood
Seminar 3			
	July 11	11.00-18.50	Hall # 5, Hotel Terme
	July 12	11.00-18.50	Hall # 5, Hotel Terme
Seminar 4			
	July 11	11.00-18.50	Hall # 6, Hotel Hungaria
	July 12	11.00-18.50	Hall # 6, Hotel Hungaria
Seminar 5			
	July 13	11.00-18.50	Hall # 5, Hotel Terme
	July 14	11.00-18.50	Hall # 5, Hotel Terme
	July 15	09.00-12.45	Hall # 5, Hotel Terme
Seminar 6			
	July 11	11.00-18.50	Hall # 4, Hotel Hollywood
	July 12	11.00-18.50	Hall # 4, Hotel Hollywood

	July 13	11.00-18.50	Hall # 9, Hotel Hollywood
	July 14	11.00-18.50	Hall # 4, Hotel Hollywood
Seminar 7	July 15	09.00-12.45	Hall # 4, Hotel Hollywood
	July 11	11.00-18.50	Hall # 2, Hotel Austria
	July 12	11.00-18.50	Hall # 2, Hotel Austria
	July 13	11.00-18.50	Hall # 2, Hotel Austria
	July 14	11.00-18.50	Hall # 2, Hotel Austria
	July 15	09.00-12.45	Hall # 2, Hotel Austria
Seminar 8	July 15	14.30-18.50	Hall # 2, Hotel Austria
	July 13	11.00-18.50	Hall # 6, Hotel Hungaria
	July 14	11.00-18.50	Hall # 6, Hotel Hungaria
	July 15	09.00-12.45	Hall # 6, Hotel Hungaria
Poster Session	July 12	19.00-21.00,	Hotel Hollywood

Scientific Program – Schedule

Hall # 1, Hotel Hollywood **Hall # 4**, Hotel Hollywood **Hall # 7**, Hotel Hollywood
Hall # 2, Hotel Austria **Hall # 5**, Hotel Terme **Hall # 8**, Hotel Hollywood
Hall # 3, Hotel Hollywood **Hall # 6**, Hotel Hungaria **Hall # 9**, Hotel Hollywood

Monday, July 11, 2011						
09.15-09.45	Welcome Remarks Large Hall, Hotel Hollywood					
09.45-10.30	PS1: Gérard Mourou (Palaiseau, France) Large Hall, Hotel Hollywood					
10.30-11.00	Coffee Break					
	Hall # 1	Hall # 2	Hall # 3	Hall # 4	Hall # 5	Hall # 6
11.00-12.45	Seminar 2.1	Seminar 7.1	Seminar 1.1	Seminar 6.1	Seminar 3.1	Seminar 4.1
12.45-14.00	Lunch					
14.00-16.15	Seminar 2.2	Seminar 7.2	Seminar 1.2	Seminar 6.2	Seminar 3.2	Seminar 4.2
16.15-16.45	Coffee Break					
16.45-18.50	Seminar 2.3	Seminar 7.3	Seminar 1.3	Seminar 6.3	Seminar 3.3	Seminar 4.3
19.00-23.00	Welcome Party , Hotel Ildza					

Tuesday, July 12, 2011						
09.00-09.45	PS2: Wolfgang Sandner (Berlin, Germany) Large Hall, Hotel Hollywood					
09.45-10.30	PS3: Alexander Savitsky (Moscow, Russia) Large Hall, Hotel Hollywood					
10.30-11.00	Coffee Break					
	Hall # 1	Hall # 2	Hall # 3	Hall # 4	Hall # 5	Hall # 6
11.00-12.45	Seminar 2.4	Seminar 7.4	Seminar 1.4	Seminar 6.4	Seminar 3.4	Seminar 4.4
12.45-14.00	Lunch					
14.00-16.15	Seminar 2.5	Seminar 7.5	Seminar 1.5	Seminar 6.5	Seminar 3.5	Seminar 4.5
16.15-16.45	Coffee Break					
16.45-18.50	Seminar 2.6	Seminar 7.6	Seminar 1.6	Seminar 6.6	Seminar 3.6	Seminar 4.6
19.00-21.00	Poster Session , Hotel Hollywood					

Wednesday, July 13, 2011						
09.00-09.45	PS4: Markus Pollnau (Enschede, The Netherlands) Large Hall, Hotel Hollywood					
09.45-10.30	PS5: Andrius Baltuska (Vienna, Austria) Large Hall, Hotel Hollywood					
10.30-11.00	Coffee Break					
	Hall # 7	Hall # 2	Hall # 8	Hall # 9	Hall # 5	Hall # 6
11.00-12.45	Seminar 2.7	Seminar 7.7	Seminar 1.7	Seminar 6.7	Seminar 5.1	Seminar 8.1
12.45-14.00	Lunch					
14.00-16.15	Seminar 2.8	Seminar 7.8	Seminar 1.8	Seminar 6.8	Seminar 5.2	Seminar 8.2
16.15-16.45	Coffee Break					
16.45-18.50	Seminar 2.9	Seminar 7.9	Seminar 1.9	Seminar 6.9	Seminar 5.3	Seminar 8.3
19.00-23.00	Conference Dinner , Hotel Hollywood					

Thursday, July 14, 2011						
09.00-09.45	PS6: See Leang Chin (Québec, Canada) Large Hall, Hotel Hollywood					
09.45-10.30	PS7: Vanderlei S. Bagnato (São Carlos, Brazil) Large Hall, Hotel Hollywood					
10.30-11.00	Coffee Break					
	Hall # 1	Hall # 2	Hall # 3	Hall # 4	Hall # 5	Hall # 6
11.00-12.45	Seminar 2.10	Seminar 7.10	Seminar 1.10	Seminar 6.10	Seminar 5.4	Seminar 8.4
12.45-14.00	Lunch					
14.00-16.15	Seminar 2.11	Seminar 7.11	Seminar 1.11	Seminar 6.11	Seminar 5.5	Seminar 8.5
16.15-16.45	Coffee Break					
16.45-18.50	Seminar 2.12	Seminar 7.12	Seminar 1.12	Seminar 6.12	Seminar 5.6	Seminar 8.6

Friday, July 15, 2011						
	Hall # 1	Hall # 2	Hall # 3	Hall # 4	Hall # 5	Hall # 6
09.00-10.30	Seminar 2.13	Seminar 7.13	Seminar 1.13	Seminar 6.13	Seminar 5.7	Seminar 8.7
10.30-11.00	Coffee Break					
11.00-12.45	Seminar 2.14	Seminar 7.14	Seminar 1.14	Seminar 6.14	Seminar 5.8	Seminar 8.8
12.45-14.00	Lunch					
14.00-14.15	Closing Remarks Large Hall, Hotel Hollywood					
14.30-16.15	Seminar 2.15	Seminar 7.15				
16.15-16.45	Coffee Break					
16.45-18.50	Seminar 2.16	Seminar 7.16				

Plenary Sessions
Monday, July 11
Welcome Remarks

- 09.15-09.25 Faruk Čaklovića (Co-chairman of LPHYS'11,
Bosnia and Herzegovina)
- 09.25-09.35 Dejan Milošević (Deputy Chairmen of LPHYS'11,
Bosnia and Herzegovina)
- 09.35-09.45 Sergey P. Kulik (Member of the Steering Committee
of LPHYS'11, Russia)
-

Monday, July 11
PLENARY SESSION (PS1)

- Chair: D. Milošević (Bosnia and Herzegovina)
- 09.45-10.30 **Gérard Mourou** (Palaiseau, France)
*The Extreme Light Infrastructure: Missions and
Challenges*
-

Tuesday, July 12
PLENARY SESSION (PS2)

- Chair: M.V. Fedorov (Russia)
- 09.00-09.45 **Wolfgang Sandner** (Berlin, Germany)
To be announced

PLENARY SESSION (PS3)

- Chair: V.S. Bagnato (Brazil)
- 09.45-10.30 **Alexander Savitsky** (Moscow, Russia)
*Photophysics of the Red Fluorescent Proteins:
Application for Rational Design of Molecular
Sensors*
-

Wednesday, July 13
PLENARY SESSION (PS4)

- Chair: A.S. Kurkov (Russia)
- 09.00-09.45 **Markus Pollnau** (Enschede, The Netherlands)
Integrated Optics: Guiding Light into the Future

PLENARY SESSION (PS5)

Chair: K.A. Prokhorov (Russia)

09.45-10.30

Andrius Baltuska (Vienna, Austria)

Bright Future with Dark Light: The Promise of TW-class Mid-IR Strong Fields

Wednesday, July 14

PLENARY SESSION (PS6)

Chair: V.A. Makarov (Russia)

09.00-09.45

See Leang Chin (Québec, Canada)

Recent Advances in Filamentation of Intense Femtosecond Laser Pulses

PLENARY SESSION (PS7)

Chair: V.I. Yukalov (Russia)

09.45-10.30

Vanderlei S. Bagnato (São Carlos, Brazil)

Effects Involving Superfluidity, Vortices, and Turbulence in Trapped Atomic Samples

Friday, July 15

Closing Remarks

Chair: V.I. Yukalov (Russia)

14.00-14.15

Large Hall, Hotel Hollywood

Seminar 1
Modern Trends in Laser Physics

Monday, July 11

Seminar 1.1

Chair: O. Kocharovskaya (USA)

- 11.00-11.30 1.1.1 P. Grangier (Palaiseau, France)
Quantum communications using coherent detection schemes
- 11.30-12.00 1.1.2 M.D. Lukin (Cambridge, USA)
Exploring new frontiers of quantum optical science
- 12.00-12.25 1.1.3 J. von Zanthier, A. Maser, R. Wiegner, U. Schilling, C. Thiel (Erlangen, Germany), T. Bastin (Liège, Belgium), E. Solano (Bilbao, Spain), and G.S. Agarwal (Stillwater, OK, USA)
Independent single photon emitters – a versatile source for the generation of entangled states in photonic or matter qubits
- 12.25-12.50 1.1.4 B.M. Escher, R.L. de Matos Filho, and L. Davidovich (Rio de Janeiro, Brazil)
Ultimate precision limits in noisy quantum-enhanced metrology
- 12.45-14.00 **Lunch**

Seminar 1.2

Chair: M. Lukin (USA)

- 14.00-14.25 1.2.1 E. Saglamyurek, N. Sinclair, J. Jin, J.A. Slater, D. Oblak, W. Tittel (Calgary, Canada), F. Bussièeres (Geneva, Switzerland), M. George, R. Ricken, and W. Sohler (Paderborn, Germany)
A broadband, waveguide quantum memory for entangled photons
- 14.25-14.50 1.2.2 V. Damon, M. Bonarota, A. Louchet-Chauvet, T. Chanelière, and J.-L. Le Gouët (Orsay, France)
Revival of silenced echo and quantum memory for light
- 14.50-15.15 1.2.3 C.O. Brien, O. Kocharovskaya (College Station, TX, USA), and A. Kalachev (College Station, TX, USA; Kazan, Russia)
Coherent control of refractive index with zero absorption for the new types of photonic structures and quantum memories
- 15.15-15.35 1.2.4 B. Tuminio, A. Ferrier, P. Goldner (Paris, France), M. Lovrić, P. Glasenapp, D. Suter (Dortmund, Germany), M. Sabooni, L. Rippe, and S. Kröll (Lund, Sweden)
Hyperfine coherence lifetime increase in a rare earth doped crystal using static magnetic field decoupling
- 15.35-15.55 1.2.5 S.V. Polyakov, A.L. Migdall (Gaithersburg, Maryland, USA), E.A. Goldschmidt, S.E. Beavan (Gaithersburg, Maryland USA; Canberra, Australia), and M.J. Sellars (Canberra, Australia)
Generation, storage, and retrieval of spin waves in Pr ion-doped crystal
- 15.55-16.15 1.2.6 M.A. Belkin, M. Jang, R.W. Adams (Austin, TX, USA), J.X. Chen, W.O. Charles, C. Gmachl (Princeton, NJ, USA), X. Wang, M. Troccoli (City of Industry, CA, USA), A. Vizbaras, M. Anders, S. Katz, C. Grasse, G. Boehm, R. Meyer, M.C. Amann (Garching, Germany), L.W. Cheng, and F.-S. Choa (Baltimore, MD, USA)
2.6-3.6 micron InGaAs/AlInAs quantum cascade laser sources based on intra-cavity second harmonic generation
- 16.15-16.45 **Coffee break**

Seminar 1.3

Chair: N. Davidson (Israel)

- 16.45-17.10 1.3.1 S. Cousin (Barcelona, Spain), J.M. Bueno (Murcia, Spain), N. Forget (Orsay, France), D.R. Austin, and J. Biegert (Barcelona, Spain)
Compact spatio-temporal ultrashort pulse characterization using a pulse shaper and a wavefront sensor – SHAZZLER
- 17.10-17.35 1.3.2 O.D. Sieber, M. Hoffmann, V.J. Wittwer, W.P. Pallmann, M. Golling, Y. Barbarin, T. Südmeyer, U. Keller (Zurich, Switzerland), I.L. Krestnikov, S.S. Mikhlin, and D.A. Livshits (Dortmund, Germany)
Novel femtosecond semiconductor lasers with more than 1 W average power
- 17.35-18.00 1.3.3 T. Südmeyer, S. Pekarek, M.C. Stumpf, A.E.H. Oehler, U. Keller (Zurich, Switzerland), S. Schilt, V. Dolgovskiy, N. Bucalovic, C. Schori, L. Tombez, G. Di Domenico, P. Thomann (Neuchâtel, Switzerland), C. Fiebig, K. Paschke, and G. Erbert (Berlin, Germany)
Compact frequency combs
- 18.00-18.25 1.3.4 V. Kubeček, M. Jelinek, M. Čech, and P. Hrišl (Prague, Czech Republic)
Generation of sub-20 ps pulses from passively mode-locked quasi-continuously pumped Nd:YAG laser
- 18.25-18.50 1.3.5 H. Rabitz (Princeton, USA)
Are landscape traps lurking to impede quantum control?
-

Tuesday, July 12

Seminar 1.4

Chair: W. Tittel (Canada)

- 11.00-11.30 1.4.1 M. Fleischhauer (Kaiserslautern, Germany)
Spinor- and Rydberg-polaritons
- 11.30-11.55 1.4.2 P. Hemmer (College Station, TX, USA)
Secrets of subwavelength imaging and lithography
- 12.00-12.25 1.4.3 S. Yelin (Connecticut, USA)
Coherent nuclear spin control in quantum dots and diamond NV centers
- 12.25-12.50 1.4.4 T. Seideman (Evanston, USA)
Laser alignment in complex media
- 12.45-14.00 **Lunch**

Seminar 1.5

Chair: M. Fleischhauer (Germany)

- 14.00-14.25 1.5.1 H.J. Carmichael and S. Hughes (Auckland, New Zealand; Ontario Canada)
Inversion of a classically pumped two-level system via coupling to an -resonant cavity mode
- 14.25-14.50 1.5.2 K. Hakuta (Tokyo, Japan)
Manipulation of atoms and photons using optical nanofibers and nanofiber cavities
- 14.50-15.15 1.5.3 J. Zhang (Miami, FL, USA; Los Alamos, NM, USA; Wuhan, China), X. Wei, Y. Wang, and Y. Zhu (Miami, FL, USA)
Quantum coherence and interference in a coupled atom-cavity system
- 15.15-15.40 1.5.4 K. Ichimura, H. Goto, S. Nakamura, and M. Kijiraoka (Kawasaki, Japan)
A quantum computer with a solid-state EIT medium and a cavity mode
- 15.40-16.00 1.5.5 R.-B. Liu (Hong Kong, China), J. Wang, and B.-F. Zhu (Beijing, China)
Optical effects of spin currents

- 16.00-16.20 1.5.6 R. Akhmedzhanov, A. Bondartsev, O. Kocharovskaya (College Station, TX, USA; Nizhny Novgorod, Russia), and L. Gushchin (Nizhny Novgorod, Russia)
Electromagnetically induced transparency on isolated and pair ion lines of Nd^{3+} doped into LaF_3
- 16.15-16.45 **Coffee break**
- Seminar 1.6**
Chair: S. Yelin (USA)
- 16.45-17.10 1.6.1 S.-Y. Zhu (Beijing, China; Hong Kong, China), J.-H. Huang, and Wang (Beijing, China)
Necessary and sufficient condition for zero quantum disorder
- 17.10-17.30 1.6.2 P.M. Anisimov, G.M. Raterman, H. Lee, and J.P. Dowling (Baton Rouge, LU, USA)
Phase estimation with two-mode squeezed vacuum
- 17.30-17.50 1.6.3 A.D. Wilson-Gordon, E. Tilchin, and O. Firstenberg (Ramat Gan, Israel; Haifa, Israel)
Effects of thermal motion on electromagnetically induced absorption
- 17.50-18.15 1.6.4 S. Moiseev (Kazan, Russia) and J.-L. Le Gouët (Orsay, France)
MAFC photon echo quantum memory
- 18.15-18.35 1.6.5 N.N. Rubtsova, V.G. Gol'dort, V.N. Ishchenko, S.A. Kochubei, E.B. Khvorostov, V.M. Salakhutdinov (Novosibirsk, Russia), V.A. Reshetov (Togliatti, Russia), and I.V. Yevseyev (Moscow, Russia)
Photon echo generated at the transition $0 \leftrightarrow 1$ in ytterbium vapour
- 18.35-18.55 1.6.6 B.S. Ham (Inchoen, S. Korea)
Spontaneous emission-free photon echoes using controlled rephrasing
-

Wednesday, July 13

Seminar 1.7

Chair: G. Welch (USA)

- 11.00-11.30 1.7.1 W.P. Schleich (Ulm, Germany; Denton, TX, USA), D. Greenberger (Ulm, Germany; New York, NY, USA), D.H. Kobe (Denton, TX, USA), and M.O. Scully (College Station, TX, USA; Princeton, NJ, USA)
The birth of the Schrodinger equation
- 11.30-11.55 1.7.2 J.R. Röhlberger, K. Schlage, B. Sahoo, and H.C. Wille (Hamburg, Germany)
Electromagnetically induced transparency in cooperative emission from a cavity
- 11.55-12.20 1.7.3 J. Evers, A. Palffy, and C.H. Keitel (Heidelberg, Germany)
Coherent control of cooperative x-ray scattering
- 12.20-12.45 1.7.4 A. Kalachev (Kazan, Russia) and O. Kocharovskaya (College Station, TX, USA)
Superradiance from nihility
- 12.45-14.00 **Lunch**

Seminar 1.8

Chair: M. Jelinek (Czech Republic)

- 14.00-14.25 1.8.1 A. Materny, M. Namboodiri, D. Roccatano, and Kh. Karki (Bremen, Germany)
Femtosecond time-resolved spectroscopy with high spatial resolution

- 14.25-14.50 1.8.2 A. Rebane and M. Drobizhev (Bozeman, MT, USA)
Quantitative femtosecond two-photon absorption spectroscopy: from nonlinear absorbers to all optical molecular voltmeter
- 14.50-15.15 1.8.3 V. Volovšek, I.M. Šapić, L. Bistričić, K. Furić, and V. Dananić (Zagreb, Croatia)
Vibrational dynamics of partially ordered molecular systems studied by laser Raman spectroscopy
- 15.15-15.35 1.8.4 X. Wang, K. Wang, G.R. Welch, and A.V. Sokolov (College Station, TX, USA)
Heterodyne coherent anti-Stokes Raman scattering by phase-control of its intrinsic background
- 15.35-15.55 1.8.5 P.A. Volkmer (Stuttgart, Germany)
Noninvasive molecular structure analysis by hyperspectral CARS imaging
- 15.55-16.15 1.8.6 K. Prokhorov, P. Pashinin (Moscow, Russia), and A. Materny (Bremen, Germany)
Raman structural diagnostics of aliphatic molecules and polymeric materials
- 16.15-16.45 **Coffee break**
- Seminar 1.9**
Chair: Y. Rostovtsev (USA)
- 16.45-17.10 1.9.1 J. Wurtele (U.C. Berkeley and LBNL, USA)
X-ray free-electron lasers at high repetition rates
- 17.10-17.35 1.9.2 C. Grivas (Southampton, UK) and M. Jelínek (Kladno and Prague, Czech Republic)
Solid-state planar waveguide lasers
- 17.35-18.00 1.9.3 A.D. Stone, Y.D. Chong, L. Ge, and H. Cao (New Haven, CT, USA)
Lasers, coherent perfect absorbers and laser-absorber
- 18.00-18.25 1.9.4 N. Davidson, M. Nixon, E. Ronen, M. Fridman, and A.A. Friesem (Rehovot, Israel)
Phase locking thousands of laser
- 18.25-18.45 1.9.5 A.A. Zadernovsky (Moscow, Russia)
Non-destructive radiative pumping of an active nuclear medium with hidden population inversion

Thursday, July 14

Seminar 1.10

Chairs: G. Mourou (France)

- 11.00-11.30 1.10.1 N.B. Narozhny and A.M. Fedotov (Moscow, Russia)
Cascade mechanism of particle creation in super strong laser fields
- 11.30-11.55 1.10.2 P. Hommelhoff, M. Schenk, and M. Krüger (Garching, Germany)
Above-threshold photoemission and strong-field effects in few-cycle laser driven electron emission from a sharp metal tip
- 11.55-12.20 1.10.3 M.B. Gaarde, D.S. Steingrube (Baton Rouge, LA, USA), E. Schultz, U. Morgner, M. Kovacev (Hannover, Germany), T. Binhammer (Garbsen, Germany), and A. Couairon (Palaiseau, France)
High order harmonics and attosecond pulses emerging from laser filaments
- 12.20-12.45 1.10.4 Y.V. Rostovtsev (Denton, TX, USA)
Ab initio calculations of atomic coherence excited by optical pulses: CEP effects and generation of X-ray radiation
- 12.45-14.00 **Lunch**

Seminar 1.11

Chair: M. Gaarde (USA)

- 14.00-14.30 1.11.1 K.J. Schafer and M.B. Gaarde (Baton Rouge, LA, USA)
Theory of transient absorption of ultrafast XUV light by laser-dressed atoms
- 14.30-14.55 1.11.2 A. Vernaleken, B. Bernhardt, A. Ozawa, I. Pupeza, I. Gotlibovych,
J. Kaster, E. Fill, W. Schneider, S.L. Stebbings, M.F. Kling, F. Krausz,
R. Holzwarth, T.W. Hänsch, Th. Udem (Garching, Germany),
J. Weitenberg, Th. Sartorius, P. Russbueldt, H.-D. Hoffmann, and
R. Poprawe (Aachen, Germany)
Towards next generation XUV frequency comb sources for spectroscopy
- 14.55-15.20 1.11.3 M. Katsuragawa, T. Suzuki, J.K. Anthony, and K.R. Pandiri (Tokyo,
Japan)
*Novel approach for generation of a train of ultrashort pulses by
counterintuitively adding a positive dispersion*
- 15.25-15.50 1.11.4 Y.V. Radeonychev, V.A. Polovinkin, and O. Kocharovskaya
(Nizhny Novgorod, Russia; College Station, TX, USA)
Resonant generation of few-cycle XUV pulses in hydrogenlike atoms
- 15.50-16.15 1.11.5 T. Nakajima (Kyoto, Japan)
Ionic coherence induced by single-photon ionization
- 16.15-16.45 **Coffee break**

Seminar 1.12

Chair: Ph. Grangier (France)

- 16.45-17.05 1.12.1 S.T. Müller, R.F. Alves, V.S. Bagnato, and D.V. Magalhães (São
Carlos, SP, Brazil)
Frequency standard based on an incavity cold Cesium atoms
- 17.05-17.30 1.12.2 P. Pillet, P. Cheinet, J.H. Gurian, P. Huillery, Y. Bruneau, A. Fioretti,
and D. Comparat (Orsay, France)
*Many body regime in a Rydberg atomic sample: dipole blockade and few
body effects*
- 17.30-17.50 1.12.3 V.Y.F. Leung, A. Tauschinsky, and R.J.C. Spreeuw (Amsterdam,
The Netherlands)
Microtrap arrays on magnetic film atom chips for quantum information
- 17.50-18.10 1.12.4 Yu.E. Lozovik (Troitsk, Russia)
Coupled condensates of cavity photons and excitons
- 18.10-18.30 1.12.5 A. Wojciechowski and W. Gawlik (Kraków, Poland)
Nonlinear Faraday rotation in cold atoms
- 18.30-18.50 1.12.6 V. Ahufinger, R. Corbalán, J. Mompart (Bellaterra, Spain),
Yu. Loiko (Minsk, Belarus), and G. Birkl (Darmstadt, Germany)
Engineering of the population distribution in optical microtraps
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Friday, July 15

Seminar 1.13

Chair: I. Čelanović (USA)

- 09.00-09.30 1.13.1 W. Dickson, A.V. Krasavin, G.A. Wurtz, and A.V. Zayats (London, UK)
Active plasmonic nanophotonics
- 09.30-10.00 1.13.2 M.A. Noginov and G. Zhu (Norfolk, VA, USA)
Metal-free optical material with negative and controllable electric permittivity

10.00-10.30 1.13.3 K.Y. Bliokh (Galway, Ireland)
Spin-orbit interactions of light at nano-scales

10.30-11.00 **Coffee break**

Seminar 1.14

Chair: A.V. Zayats (UK)

11.00-11.30 1.14.1 I. Čelanović, P. Bermel, Y.X. Yeng, M. Ghebrehbran,
J. Joannopoulos, and M. Soljačić (Cambridge, MA, USA)
Photonic crystals: shaping the flow of infrared radiation

11.30-11.55 1.14.2 M.G. Gladush, D.V. Kuznetsov, and V.K. Roerich (Troitsk, Russia)
Local fields and relaxation rates in a dielectric medium

11.55-12.20 1.14.3 G.A. Koganov, R. Shuker, and B. Shif (Beer Sheva, Israel)
Superradiant second harmonic generation in semiconductor quantum wells

Poster Session, Tuesday, July 12

Chair: Y.V. Radeonychev (Russia)

P1.1 R. Akhmedzhanov, A. Bondartsev, L. Gushchin, I. Zelensky, and
O. Kocharovskaya (Nizhny Novgorod, Russia; College Station, TX, USA)
*Efficient regime of electromagnetically induced transparency in $Pr^{3+}:LaF_3$
crystal*

P1.2 M. Piotrowski, A. Stabrawa, M. Kubasik, J. Zachorowski, and W. Gawlik
(Kraków, Poland)
Spinor BEC of ^{87}Rb in optical dipole trap

P1.3 Yu.V. Zavgorodnev, K.A. Prokhorov, T.M. Ushakova, L.A. Novokshonova,
E.E. Starchak, V.G. Krasheninnikov, G.Yu. Nikolaeva, P.P. Pashinin,
M.A. Guseva (Moscow, Russia), E.A. Sagitova (Moscow, Russia; Bremen,
Germany), P. Donfack, B.von der Kammer, and A. Materny (Bremen,
Germany)
*Raman structural study of amorphous phase of ethylene/1-hexene
copolymers*

P1.4 V.A. Polovinkin, Y.V. Radeonychev, and O. Kocharovskaya (Nizhny
Novgorod, Russia; College Station, TX, USA)
Formation of ultrashort gamma-ray pulses via vibration of resonant absorber

P1.5 E.L. Surmenko, T.N. Sokolova, A.V. Konyushin, I.A. Popov,
Yu.V. Chebotarevsky, and G.V. Sahaji (Saratov, Russia)
Laser structuring of the emitting surface of metal porous cathodes

P1.6 K. Sycz, J. Zachorowski, and W. Gawlik (Kraków, Poland)
Nonlinear magneto-optics in a Fabry-Pérot cavity

Seminar 2
Strong Field & Attosecond Physics

Monday, July 11

Seminar 2.1

Chair: W. Becker (Germany)

- 11.00-11.30 2.1.1 P.K. Bates, S. Teichmann, S. Cousin, A. Grün (Barcelona, Spain),
A. Couairon (Palaiseau, France), M. Clerici, A. Lotti, D. Faccio,
P. Di Trapani (Como, Italy), and J. Biegert (Barcelona, Spain)
Angle-frequency analysis of high-order harmonic generation
- 11.30-11.55 2.1.2 M.V. Frolov, N.L. Manakov (Voronezh, Russia), A.A. Silaev,
N.V. Vvedenskii (Nizhny Novgorod, Russia), and A.F. Starace (Lincoln, USA)
*High harmonic generation by atoms in a few-cycle laser pulse: carrier-
envelope phase and many-electron effects*
- 11.55-12.20 2.1.3 J.A. Pérez-Hernández, L. Roso, A. Zaïr, and L. Plaja (Salamanka, Spain)
Efficient high-order harmonic generation at intensities well above saturation
- 12.20-12.45 2.1.4 R. Guichard, J. Caillat, A. Maquet, R. Taïeb (Paris, France),
Z. Diveki, A. Camper, S. Haessler, T. Ruchon, T. Auguste, P. Breger,
B. Carre, and P. Salieres (Gif-sur-Yvette, France)
Multiorbital contributions in N_2 harmonic phase measurements

12.45-14.00

Lunch

Seminar 2.2

Chair: J. Biegert (Spain)

- 14.00-14.25 2.2.1 R.A. Ganeev (London, UK)
High-order harmonic generation in laser plasma
- 14.25-14.50 2.2.2 V.V. Strelkov, M.A. Khokhlova, N.Yu. Shubin (Moscow, Russia),
and D. Kilbane (Dublin, Ireland)
Attosecond pulse production using resonant high-order harmonic generation
- 14.50-15.15 2.2.3 F. Pfeifer (Heidelberg, Germany)
*Attosecond continuum- and bound-state wavepacket interference: applications
in strong-field high-harmonic generation and electron localization*
- 15.15-15.40 2.2.4 S.A. Sørngård, S. Askeland, R. Nepstad, and M. Førre (Bergen, Norway)
Multiphoton ionization and stabilization of helium in superintense xuv fields
- 15.40-16.05 2.2.5 A.M. Popov, O.V. Tikhonova, and E.A. Volkova (Moscow, Russia)
Strong-field behaviour of atoms in IR short laser pulses

16.15-16.45

Coffee break

Seminar 2.3

Chair: F. Pegoraro (Italy)

- 16.45-17.15 2.3.1 I. Barth and O. Smirnova (Berlin, Germany)
Electronic ring currents induced by excitation and ionization
- 17.15-17.40 2.3.2 H.-J. Kull (Aachen, Germany) and A. Schmidt-Bleker (Greifswald,
Germany)
Nonlinear plasma waves and wavebreaking in quantum plasmas
- 17.40-18.05 2.3.3 A.A. Silaev and N.V. Vvedenskii (Nizhny Novgorod, Russia)
*Ionization-induced excitation of residual current in a plasma produced by a
few-cycle laser pulse*
- 18.05-18.30 2.3.4 A.V. Gets and V.P. Krainov (Moscow, Russia)
Field phase dependence in the ionization of atoms by intense ultrashort pulses

Tuesday, July 12

Symposium on Attosecond Spectroscopy, Chair: Olga Smirnova (Berlin, Germany)

Seminar 2.4 – S1

Chair: V. Averbukh (UK)

- 11.00-11.30 2.4.1 A. Abedi (Halle, Germany), N.T. Maitra (New York, USA), and E.K.U. Gross (Halle, Germany)
Exact factorization of the time-dependent electron-nuclear wave function
- 11.30-12.00 2.4.2 D. Shafir, H. Soifer, B.D. Bruner (Rehovot, Israel), Y. Mairesse (Bordeaux, Talence, France), M.Yu. Ivanov (London, UK), O. Smirnova (Berlin, Germany), and N. Dudovich (Rehovot, Israel)
When does an electron exit a tunneling barrier?
- 12.00-12.30 2.4.3 A. Rudenko (Hamburg, Germany)
Multiphoton multiple ionization of atoms and molecules in the X-ray domain
- 12.45-14.00 **Lunch**

Seminar 2.5 – S2

Chair: A. Rudenko (Germany)

- 14.00-14.30 2.5.1 B. Cooper and V. Averbukh (London, UK)
Laser-enabled Auger transitions: probing electronic correlation in inner-valence-ionized states
- 14.30-15.00 2.5.2 A.I. Kuleff (Heidelberg, Germany)
Ultrafast electron dynamics following ionization
- 15.00-15.30 2.5.3 V.S. Yakovlev, M. Schultze, M. Fieß, N. Karpowicz, J. Gagnon, M. Korbman, M. Hofstetter, S. Neppl, A.L. Cavalieri, Y. Komninos, Th. Mercouris, C.A. Nicolaides, R. Pazourek, S. Nagele, J. Feist, J. Burgdörfer, A.M. Azzeer, R. Ernstorfer, R. Kienberger, U. Kleineberg, E. Goulielmakis, and F. Krausz (Garching, Germany)
Time-resolving photoionization with attosecond streaking spectroscopy
- 15.30-16.00 2.5.4 A. Wirth, M.Th. Hassan, I. Grguras, J. Gagnon, A. Moulet, T.T. Luu (Garching, Germany), S. Pabst, R. Santra (Hamburg, Germany), Z. Alahmed, A.M. Azzeer (Riyadh, Kingdom of Saudi Arabia), V.S. Yakovlev, V. Pervak, F. Krausz, and E. Goulielmakis (Garching, Germany)
Sub-optical-cycle waveform light synthesis: steering and tracing ionization and electron dynamics in real-time
- 16.15-16.45 **Coffee break**

Seminar 2.6 – S3

Chair: N. Dudovich (Israel)

- 16.45-17.15 2.6.1 A. Zair, T. Siegel, S. Sukiasyan, Ch. Hutchison, P. Salieres, M. Ivanov, and J. Marangos (London, UK)
Molecular internal dynamics studied by quantum path interferences within high order harmonic generation
- 17.15-17.45 2.6.2 Y. Huismans (Amsterdam, The Netherlands), A. Rouzée, A. Gijsbertsen, J.H. Jungmann, A.S. Smolkowska, P.S.W.M. Logman, F. Lépine, C. Cauchy, S. Zamith, T. Marchenko, J.M. Bakker, G. Berden, B. Redlich, A.F.G. van der Meer (Garching, Germany), H.G. Muller (Amsterdam, The Netherlands), W. Vermin, K.J. Schafer, M. Spanner, M.Yu. Ivanov (London, UK), O. Smirnova (Berlin, Germany), D. Bauer (Rostock, Germany), S.V. Popruzhenko (Moscow, Russia), and M.J.J. Vrakking (Berlin, Germany)
Photoelectron holography

- 17.45-18.15 2.6.3 H. Ruf, C. Handschin, B. Fabre, V. Blanchet, E. Constant, E. Mével, and Y. Mairesse (Bordeaux, Talence, France)
High-harmonic generation in clusters revisited
- 18.15-18.45 2.6.4 A. Kirrander (Orsay, France) and D.V. Shalashilin (Leeds, UK)
Numerical quantum dynamics using the coupled coherent states method: applications to strong-fields
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Wednesday, July 13

Seminar 2.7

Chair: A. Starace (USA)

- 11.00-11.25 2.7.1 D. Bauer (Rostock, Germany), T.-M. Yan (Rostock, Germany; Heidelberg, Germany), S.V. Popruzhenko (Moscow, Russia), and M.J.J. Vrakking (Berlin, Germany)
Strong field quantum dynamics beyond the strong field approximation
- 11.25-11.50 2.7.2 A. Pálffy, H.M. Castañeda Cortés (Heidelberg, Germany), S.V. Popruzhenko (Moscow, Russia), and D. Bauer (Berlin, Germany)
Laser-assisted tunneling of quasistationary states
- 11.50-12.20 2.7.3 A.M. Popov, O.V. Tikhonova, and E.A. Volkova (Moscow, Russia)
Strong-field effects in interaction of atomic systems with low-frequency intense laser pulses
- 12.20-12.45 2.7.4 A.S. Kornev and B.A. Zon (Voronezh, Russia; Belgorod, Russia),
Relativistic effects in tunnel ionization of atoms
- 12.45-14.00 **Lunch**

Seminar 2.8

Chair: Ch. Keitel (Germany)

- 14.00-14.30 2.8.1 T. Seideman (Evanston, IL, USA)
High harmonic generation from aligned molecules as a route to molecular continua
- 14.30-14.55 2.8.2 E. Hasović, D.B. Milošević (Sarajevo, Bosnia and Herzegovina; Berlin, Germany), M. Busuladžić, A. Gazibegović-Busuladžić (Sarajevo, Bosnia and Herzegovina), and W. Becker (Berlin, Germany)
High-order above-threshold ionization of heteronuclear diatomic molecules by a strong laser field with arbitrary polarization
- 14.55-15.20 2.8.3 V.Yu. Kharin, A.M. Popov, and O.V. Tikhonova (Moscow, Russia)
Vibrational-rotational behavior of diatomic heteronuclear molecules in intense laser pulses
- 15.20-15.45 2.8.4 S. Odžak and D.B. Milošević (Sarajevo, Bosnia and Herzegovina)
Elliptic dichroism, ellipticity and the offset angle of high harmonics generated by arbitrary homonuclear diatomic molecules
- 15.45-16.10 2.8.5 E. Hasović (Sarajevo, Bosnia and Herzegovina; Berlin, Germany), A. Gazibegović-Busuladžić, M. Busuladžić (Sarajevo, Bosnia and Herzegovina), D. Milošević (Sarajevo, Bosnia and Herzegovina; Berlin, Germany), and W. Becker (Berlin, Germany)
High-order above-threshold ionization with few-cycle laser pulses: molecular improved strong-field approximation vs. molecular low-frequency approximation
- 16.15-16.45 **Coffee break**

Seminar 2.9

Chair: H.R. Reiss (USA, Germany)

- 16.45-17.15 2.9.1 C.H. Keitel, A. Di Piazza, J. Evers, Z. Harman, K.Z. Hatsagortsyan, A. Ipp, and C. Müller (Heidelberg, Germany)
Quantum vacuum, electrons and ions in extremely strong laser pulses
- 17.15-17.40 2.9.2 K. Krajewska and J.Z. Kaminski (Warsaw, Poland)
Laser-assisted electron-positron pair creation: from tunneling- to multiphoton regime
- 17.40-18.05 2.9.3 D. Seipt and B. Kämpfer (Dresden, Germany)
Non-linear Compton scattering of ultrashort intense laser pulses
- 18.05-18.30 2.9.4 F. Morales, M. Richter (Berlin, Germany), S. Patchkovskii (Berlin, Germany; Ottawa, Canada), and O. Smirnova (Berlin, Germany)
Photoelectron spectroscopy of the Kramers-Henneberger atom
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Thursday, July 14

Seminar 2.10

Chair: F.M.C. Faria (UK)

- 11.00-11.25 2.10.1 W. Becker (Berlin, Germany)
Rescattering processes for elliptical polarization
- 11.25-11.50 2.10.2 C. Liu and K.Z. Hatsagortsyan (Heidelberg, Germany)
Role of multiple rescattering of electrons at above-threshold ionization in mid-infrared strong laser fields
- 11.50-12.15 2.10.3 H.R. Reiss (Berlin, Germany; Washington, DC, USA)
Basic problems with laser-induced "recollisions"
- 12.15-12.40 2.10.4 M.V. Frolov, D.V. Knyazeva, N.L. Manakov (Voronezh, Russia), A.M. Popov, O.V. Tikhonova, E.A. Volkova (Moscow, Russia), and A.F. Starace (Lincoln, NE, USA)
Analytic formulas for high-energy spectra of at/ati electrons produced by an intense short laser pulse with the stabilized CEP
- 12.45-14.00 **Lunch**

Seminar 2.11

Chair: D. Bauer (Germany)

- 14.00-14.30 2.11.1 H. Rottke, B. Manschwetus, G. Steinmeyer (Berlin, Germany), L. Foucar (Hamburg, Germany), A. Czasch, H. Schmidt-Böcking (Frankfurt, Germany), and W. Sandner (Berlin, Germany)
Mechanisms underlying strong-field double ionization of argon dimers
- 14.30-14.55 2.11.2 J. Liu (Beijing, China)
Strong-field double ionization of atoms and molecules
- 14.55-15.20 2.11.3 A.S. Kornev, E.B. Tulenko (Voronezh, Russia), and B.A. Zon (Voronezh, Russia; Belgorod, Russia)
Multiple ionization of argon, krypton, and xenon in relativistic laser fields
- 15.20-15.50 2.11.4 B. Bergues (Garching, Germany)
Sub-cycle dynamics of non sequential double ionization of atoms
- 15.50-16.15 2.11.5 T. Shaaran (London, UK), H. Schomerus (Lancaster, UK), B.B. Augstein, and C.F.M. Faria (London, UK)
The recollision-excitation-tunneling pathway in laser-induced nonsequential double ionization: causality and quantum interference
- 16.15-16.45 **Coffee break**

Seminar 2.12

Chair: H. Rottke (Germany)

- 16.45-17.15 2.12.1 M.F. Kling (Garching, Germany)
Attosecond nanophotonics
- 17.15-17.45 2.12.2 A. Jaron-Becker (Boulder, CO, USA), W. Li (Detroit, MI, USA),
C.W. Hogle, X.B. Zhou, A. Becker, H.C. Kapteyn, and M.M. Murnane
(Boulder, CO, USA)
*Strong field ionization imaging of electron rearrangement in the simplest
chemical reaction*
- 17.45-18.10 2.12.3 F. Pegoraro and M. Tamburini (Pisa, Italy)
*Foil acceleration in the radiation dominated regime: the effect of the
radiation reaction force*
- 18.10-18.35 2.12.4 I.A. Burenkov and O.V. Tikhonova (Moscow, Russia)
*Ionization suppression and entanglement in a system of two interacting
Rydberg atoms driven by strong laser field*
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Friday, July 15

Seminar 2.13

Chair: K. Krajewska (Poland)

- 09.00-09.30 2.13.1 H.C. Shao and A.F. Starace (Lincoln, NE, USA)
*Detecting electron motion in atoms and molecules with attosecond electron
pulses*
- 09.30-09.55 2.13.2 A.A. Gonoskov, A.V. Korzhimanov (Nizhny Novgorod, Russia;
Umeå, Sweden), A.V. Kim (Nizhny Novgorod, Russia), M. Marklund
(Umeå, Sweden), and A.M. Sergeev (Nizhny Novgorod, Russia)
*Giant attosecond pulse generation and focusing at optimal interaction of an
ultrarelativistic laser pulse with an overdense plasma*
- 09.55-10.20 2.13.3 F. Morales (Berlin, Germany), J.F. Pérez Torres (Madrid, Spain),
J.L. Sanz Vicario (Medellin, Colombia), F. Martín (Madrid, Spain), and
O. Smirnova (Berlin, Germany)
Attosecond imaging and control of autoionization in molecules

10.30-11.00

Coffee break

Seminar 2.14

Chair: H.-J. Kull (Germany)

- 11.00-11.25 2.14.1 M. Schenk, M. Krüger, and P. Hommelhoff (Garching, Germany)
Attosecond control of electrons photoemitted from a nanoscale metal tip
- 11.25-11.50 2.14.2 J. Caillat, A. Maquet, and R. Taïeb (Paris, France)
Attosecond control of electron emission in two-color photoionization
- 11.50-12.15 2.14.3 H. Geiseler, H. Rottke, G. Steinmeyer, and W. Sandner (Berlin,
Germany),
*Controlling quantum beat structures in the two-color photoionization
continuum of neon*
- 12.15-12.40 2.14.4 J.M. Mikhailova (Garching, Germany; Moscow, Russia), P. Heissler,
R. Hoerlein, A. Buck, A. Borot (Palaiseau, France), K. Schmid,
C.M.S. Sears, L. Waldecker (Garching, Germany), M. Zepf (Belfast, UK),
F. Krausz, G.D. Tsakiris, and L. Veisz (Garching, Germany)
*Few-cycle ultrahigh-contrast multi-tw light pulses for broadband
relativistic high-harmonic generation*
- 12.45-14.00 **Lunch**

Seminar 2.15

Chair: A.M. Popov (Russia)

- 14.30-14.55 2.15.1 F. Mackenroth, A. Di Piazza, and C. H. Keitel (Heidelberg, Germany)
Measuring the carrier-envelope phase of ultra-intense few-cycle laser pulses
- 14.55-15.20 2.15.2 I.A. Gonoskov, A. Aiello, S. Heugel, and G. Leuchs (Erlangen, Germany)
4 π focusing and dipole pulses generation for high intensity laser physics
- 15.20-15.45 2.15.3 A. Benseny (Bellaterra, Spain), A. Picón (Bellaterra, Spain; Boulder, CO, USA), L. Plaja, L. Roso (Salamanca, Spain), and J. Mompart (Bellaterra, Spain)
Transferring the angular momentum of ultraintense light beams to atoms
- 16.15-16.45 **Coffee break**

Poster Session, Tuesday, July 12

Chair: M.V. Fedorov (Russia)

- P2.1 R. Ahmetagić and D.B. Milošević (Sarajevo, Bosnia and Herzegovina)
Application of the phase space path-integral to atomic processes in strong fields: above-threshold ionization
- P2.2 W. Gassen and H.-J. Kull (Aachen, Germany)
Quantum plasma computations with carrier-envelope-waves: dispersion and Landau-damping of plasma waves
- P2.3 A.V. Gulyaev and O.V. Tikhonova (Moscow, Russia)
Interaction of ultrashort laser pulses with entangled atomic systems
- P2.4 M. Khokhlova, N. Shubin (Moscow, Russia), D. Kilbane (Dublin, Ireland), and V. Strelkov (Moscow, Russia)
Phase properties of resonant high-order harmonics
- P2.5 A.S. Kornev (Voronezh, Russia) and B.A. Zon (Voronezh, Russia; Belgorod, Russia)
Relativistic WKB approximation for electron in central field
- P2.6 A. Kramo (Sarajevo, Bosnia and Herzegovina), E. Hasović, and D.B. Milošević (Sarajevo, Bosnia and Herzegovina; Berlin, Germany)
The interference of the saddle-point-equation solutions for the bicircular-laser-field-induced above-threshold detachment
- P2.7 A.S. Gevorkyan, A.A. Gevorkyan, and K.B. Oganesyan (Yerevan, Armenia)
Statistical properties of the quantum vacuum under the influence of electromagnetic fields
- P2.8 M.V. Frolov, N.L. Manakov, T.S. Sarantseva (Voronezh, Russia), and A.F. Starace (Lincoln, NE, USA)
Does the factorized formula for harmonic generation involve the exact photorecombination cross section?
- P2.9 P.R. Sharapova and O.V. Tikhonova (Moscow, Russia)
Interaction of an atom with a strong non-classical field
- P2.10 A.A. Silaev and N.V. Vvedenskii (Nizhny Novgorod, Russia)
Role of quantum effects in terahertz waves generation due to gas ionization by two-color laser pulses
- P2.11 A.A. Silaev, M.Yu. Ryabikin, and N.V. Vvedenskii (Nizhny Novgorod, Russia)
The use of reduced-dimensionality quantum-mechanical models for studying the computationally demanding problems of strong-field science

- P2.12 V.V. Strelkov, V.T. Platonenko (Moscow, Russia), Z. Zeng, P. Liu, Y. Zheng, and R. Li (Shanghai, China)
Phase-matched non-collinear high harmonic generation
- P.2.13 V.V. Strelkov (Moscow, Russia), A.A. Gonoskov, I.A. Gonoskov, and M.Yu. Ryabikin (Nizhny Novgorod, Russia)
Origin for ellipticity of high-order harmonics
- P2.14 A.N. Zheltukhin, M.V. Frolov, A.V. Flegel, and N.L. Manakov (Voronezh, Russia)
Laser-assisted recombination of slow electrons: analytical treatment
- P2.15 V.I. Usachenko, P.E. Pyak, and V.V. Kim (Tashkent, Uzbekistan)
Strong-field above-threshold ionization in laser-irradiated C₆₀: the signatures of orbital symmetry and intramolecular interference
- P2.16 V.I. Usachenko, P.E. Pyak, and V.V. Kim (Tashkent, Uzbekistan)
High suppression in strong-field ionization of laser-irradiated molecule C₆₀

Seminar 3 Biophotonics

Monday, July 11

Seminar 3.1

Chair: J. Lademann (Germany)

- 11.00-11.30 3.1.1 C. Dongre, J. van Weerd, G.A.J. Besselink, R. Osellame, R. Martinez Vázquez, G. Cerullo, R. van Weeghel, H.H. van Den Vlekkert, H.J.W.M. Hoekstra, and M. Pollnau (Twente, The Netherlands)
Modulation-frequency encoded multi-color fluorescent DNA analysis in an optofluidic chip
- 11.30-11.55 3.1.2 I.N. Mihailescu, C. Ristoscu, F. Sima, and G. Socol (Ilfov, Romania)
Synthesis of biomaterial thin films by pulsed laser deposition technologies for application in biomimetic coatings of advanced implants, drug delivery systems and biosensors
- 11.55-12.20 3.1.3 B.I. Akca, K. Wörhoff, V.D. Nguyen, J. Kalkman, T.G. van Leeuwen, R.M. de Ridder, and M. Pollnau (Twente, The Netherlands)
Towards spectral-domain optical coherence tomography on a silicon chip
- 12.20-12.45 3.1.4 T.A. Savelieva, M.V. Loschenov, M.N. Kholodtsova, V.B. Loschenov, and A.A. Potapov (Moscow, Russia)
Quantification of neural tissue properties with multimodal spectroscopic measurements and multispectral visualization

12.45-14.00

Lunch

Seminar 3.2

Chair: E. Wintner (Austria)

- 14.00-14.30 3.2.1 C.T. de Andrade, J.D. Vollet-Filho, V.S. Bagnato, and C. Kurachi (São Paulo, Brazil)
Light spectrum modification in turbid media
- 14.30-15.00 3.2.2 A.V. Korobtsov, S.P. Kotova, N.N. Losevsky, N.A. Lysov, A.M. Mayorova, V.V. Patlan, E.V. Timchenko, N.E. Toropova, and E.G. Zarubina (Samara, Russia)
Optical tweezers use for the RBCs study and cancer cells selecting out
- 15.00-15.25 3.2.3 M. Atif, M. AlSalhi, A.A. AlObiadi, and A.S. Aldwayyan (Riyadh, Saudi Arabia)
Optical characteristics of normal and malignant lung cells
- 15.25-15.50 3.2.4 P. Pavlova (Plovdiv, Bulgaria), E. Borisova, L. Avramov, E. Petkova, and P. Troyanova (Sofia, Bulgaria)
Development of spectral etalons for skin cancer diagnosis
- 15.50-16.15 3.2.5 M. AlSalhi, S. Ben Amer, K. Farhat, D. Rabah, S. Devanesan, M. Atif, and V. Masilamani (Riyadh, Saudi Arabia)
Optical biopsy of breast cancer tissue

16.15-16.45

Coffee break

Seminar 3.3

Chair: V. Bagnato (Brazil)

- 16.45-17.10 3.3.1 O.I. Baum, E.N. Sobol, A.I. Omelchenko (Troitsk, Russia), E.M. Sherbakov, and A.V. Bolchunov (Moscow, Russia)
Effect of nondestructive laser radiation on water permeability of eye trabecula
- 17.10-17.35 3.3.2 J. Novak, M. Mališ, and N. Došlić (Zagreb, Croatia)
Population dynamics of all-trans retinal chromophore

- 17.35-18.00 3.3.3 A. Sukhinina, S. Gonchukov, D. Bakhmutov (Moscow, Russia), and S. Bochkova (Troitsk, Russia)
Raman spectroscopy of saliva as a perspective method for periodontitis diagnostics
- 18.00-18.25 3.3.4 T.Yu. Moguilnaya and A.G. Botikov (Moscow, Russia)
Coherent spectroscopy methods for the biological solution and nanoparticle size study
- 18.25-18.50 3.3.5 E. Borisova, Tz. Uzunov, and L. Avramov (Sofia, Bulgaria)
Spectral detection of carious lesions using laser-induced autofluorescence spectroscopy (LIAFS) and laser-induced breakdown spectroscopy (LIBS)
-

Tuesday, July 12

Seminar 3.4

Chair: L. Longo (Italy)

- 11.00-11.30 3.4.1 J. Lademann, S. Sassning, O. Lademann, M.E. Darvin, S. Schanzer (Berlin, Germany), A. Kramer (Greifswald, Germany), H. Richter, W. Sterry, and J.W. Fluhr (Berlin, Germany)
In vivo Raman spectroscopic determination of the antioxidant profile in human stratum corneum after skin treatment with tissue tolerable plasma
- 11.30-11.55 3.4.2 L.V. Doronina-Amitonova, I.V. Fedotov, O.I. Ivashkina, M.A. Zots, A.A. Voronin, A.B. Fedotov, K.V. Anokhin, and A.M. Zheltikov (Moscow, Russia)
Nonlinear-optical brain anatomy: Morphometry and chemically selective neuroimaging using optical harmonic generation, coherent Raman scattering, and two-photon microscopy
- 11.55-12.20 3.4.3 M.N. Kholodtsova and P.V. Grachev (Moscow, Russia)
Determining of the optical sampling depth in brain tissue using different approaches to light distribution modeling
- 12.20-12.45 3.4.4 M.E. Darvin, W. Werncke (Berlin, Germany), K. König (Saarbrücken, Germany), W. Sterry, and J. Lademann (Berlin, Germany)
Two-photon microscopy as a non-invasive method for determination of the penetration of topically applied in human skin

12.45-14.00

Lunch

Seminar 3.5

Chair: A. Savitsky (Russia)

- 14.00-14.30 3.5.1 L. Longo (Firenze, Italy)
Laser in regenerative medicine: therapy of traumatic central nervous system injuries
- 14.30-15.00 3.5.2 A. Yousif, P. Dungal, and E. Wintner (Wien, Austria)
Soft laser and LED applications
- 15.00-15.25 3.5.3 E. Remlova (Olomouc, Czech Republic)
10 years experience with PDL (pulsed dye laser) in medicine
- 15.25-15.50 3.5.4 A.M. Korobov, T.A. Lesnaya, and V.A. Korobov (Kharkov, Ukraine)
Leukocytic reaction of peripheral blood and abdominal walls of healthy experimental animals on action of monochromatic and nonmonochromatic radiation with wavelength of 1.0 μm
- 15.50-16.15 3.5.5 A.P. Sviridov (Troitsk, Russia)
Scattering phase matrix of two-phase media with randomly oriented interfaces
- 16.15-16.45 **Coffee break**

Seminar 3.6

Chair: S. Gonchukov (Russia)

16.45-17.15 3.6.1 S.V. Pham, M. Dijkstra, A.J.F. Hollink, R.M. de Ridder, M. Pollnau, and H.J.W.M. Hoekstra (Twente, The Netherlands)

Si₃N₄ grated waveguide optical cavity based sensors for bulk-index concentration, label-free protein, and mechano-optical gas sensing

17.15-17.45 3.6.2 Z. Harman, B. Galow, Yo.I. Salamin, and Ch.H. Keitel (Heidelberg, Germany)

Laser generation of high-quality ion beams for cancer radiotherapy

Poster Session, Tuesday, July 12

Chair: S. Gonchukov (Russia)

- P3.1 H.H. Buza, V.S. Bagnato, and C. Kurachi (São Paulo, Brazil)
Difference between vascular effect in PDT using porphyrin and chlorin compounds on chick chorioallantoic membrane
- P3.2 R.K. Chailakhyan (Moscow, Russia), V.I. Yusupov (Troitsk, Russia), J.V. Gerasimov, P.A. Sobolev, A.H. Tambiev (Moscow, Russia), N.N. Vorobieva, A.P. Sviridov, and V.N. Bagratashvili (Troitsk, Russia)
Proliferation of normal and suppressed bone marrow stromal stem cells under physical actions
- P3.3 A.V. Corazza (Campinas, Brazil), V.S. Bagnato, F.R. Paolillo (São Paulo, Brazil), F.C. Groppo, and P.H. Ferreira Caria (Campinas, Brazil)
LED-therapy associated with resistive exercise improves performance physical in elderly-ovariectomized animals
- P3.4 S. Gonchukov, T. Lonkina, and V. Yermachenko (Moscow, Russia)
Space selectivity properties of a laser with reflected radiation injection
- P3.5 E.V. Karlova, S.P. Kotova, V.V. Patlan, K.N. Russkov, S.A. Samagin, T.N. Sapsina, and A.V. Zolotarev (Samara, Russia)
Synthetic intraocular lens visual performance optimization by inducing high-order aberrations
- P3.6 V.N. Khristophorov, T.V. Khristophorova (Moscow, Russia), V.N. Bagratashvili, N.N. Vorobieva, A.P. Sviridov (Troitsk, Russia), and S.F. Timashev (Moscow, Russia)
Human biological active point response under physical action
- P3.7 S.V. Kireev, I.G. Symanovski, and S.L. Shnyrev (Moscow, Russia)
Improving the accuracy of the optical method for the detection of the iodine-containing substances in liquid media
- P3.8 M. Moshnin, A. Zaitsev, Z. Moshnina, and S. Gonchukov (Moscow, Russia)
Optical method of PUVA-therapy efficiency increase
- P3.9 G. Nicolodelli, R.F.Z. Lizarelli, C. Kurachi, and V.S. Bagnato (São Paulo, Brazil)
Threshold ablation determination using femtosecond laser in bovine bone
- P3.10 V.H. Panhoca, C. Kurachi, F.E. Florez, J.M.G. Tanomaru, and V.S. Bagnato (São Paulo, Brazil)
In situ evaluation of the effects of photodynamic antimicrobial chemotherapy (PACT) in control of streptococcus mutans in dental biofilm

- P3.11 F.R. Paolillo, A. Corazza (São Paulo, Brazil), A. Borghi-Silva, N.A. Parizotto (São Carlos, Brazil), C. Kurachi, and V.S. Bagnato (São Paulo, Brazil)
Infrared-LED (850nm) illumination improve exercise tolerance and peripheral strength during aging
- P3.12 Y. Soshnikova, O. Baum, M. Obrezkova, and E. Sobol (Troitsk, Russia)
Laser reshaping of costal cartilage

Seminar 4 Physics of Lasers

Monday, July 11

Seminar 4.1

Chair: T. Südmeyer (Switzerland)

- 11.00-11.30 4.1.1 M. Eichhorn (Saint-Louis Cedex, France)
Recent advances in diode-pumped eye-safe quasi-three-level lasers: From multi-kW heat-capacity lasers to high-repetition-rate high-pulse-energy fiber lasers
- 11.30-12.00 4.1.2 C. Kränkel, K. Beil, C. Brandt, F. Reichert, P. Koopmann, K. Petermann, and G. Huber (Hamburg, Germany)
Tailored gain spectra in Rare Earth doped mixed oxide crystals
- 12.00-12.30 4.1.3 A. Pirri, G. Toci, and M. Vannini (Sesto Fiorentino, Italy)
Characterization and comparison of the performance of lasers based on Yb-doped ceramics as YAG, Lu_2O_3 and Sc_2O_3
- 12.30-12.45 4.1.4 D. Toci, A. Pirri, D. Alderighi, and M. Vannini (Sesto Fiorentino, Italy)
Measurement of upper level lifetime in presence of radiation trapping: a revisitiation of the pinhole method
- 12.45-14.00 **Lunch**

Seminar 4.2

Chair: C. Kränkel (Germany)

- 14.00-14.30 4.2.1 J. Yang, C. Grivas, M.B.J. Diemeer, A. Driessen, and M. Pollnau (Enschede, The Netherlands)
Continuous-wave polymer lasers
- 14.30-15.00 4.2.2 G. Strömqvist, V. Pasiskevicius, C. Canalias, and F. Laurell (Stockholm, Sweden)
Spectral properties of a mirrorless optical parametric oscillator
- 15.00-15.30 4.2.3 M. Segura, X. Mateos, M.C. Pujol, J.J. Carvajal, M. Aguiló, F. Díaz, U. Griebner, and V. Petrov (Tarragona, Spain; Berlin, Germany)
 Cr^{2+} :ZnS saturable absorber
- 15.30-16.00 4.2.4 D. Geskus, S. Aravazhi, S.M. García-Blanco, and M. Pollnau (Enschede, The Netherlands)
Giant optical gain in a rare-earth-ion-doped waveguide amplifier
- 16.00-16.15 4.2.5 L. Agazzi, J.D.B. Bradley, J. Yang, F. Ay, K. Wörhoff, and M. Pollnau (Enschede, The Netherlands)
 Er^{3+} and Nd^{3+} doped Al_2O_3 amplifiers on a silicon chip
- 16.15-16.45 **Coffee break**

Seminar 4.3

Chair: M. Eichhorn (France)

- 16.45-17.15 4.3.1 T. Taira (Okazaki, Japan)
Large aperture QPM devices for giant micro-photonics
- 17.15-17.45 4.3.2 W.A. Clarkson and R. Cieslak (Southampton, UK)
Novel resonantly-enhanced nonlinear frequency conversion scheme for cladding-pumped fiber lasers
- 17.45-18.00 4.3.3 G.A. Bufetova, D.A. Nikolaev, A.I. Trikshev, V.B. Tsvetkov, and I.A. Shcherbakov (Moscow, Russia)
Interference research of Nd:GGG active disk under diode pumping

- 18.00-18.15 4.3.4 B.V. Zhdanov and R.J. Knize (Fairchild, USA)
Alkali vapor lasers: history and current state
- 18.15-18.30 4.3.5 A.A. Veber, K.A. Subbotin, and V.B. Tsvetkov (Moscow, Russia)
Luminescent properties of bismuth centers in bismuth-doped crystalline media
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Tuesday, July 12

Seminar 4.4

Chair: W.A. Clarkson (UK)

- 11.00-11.30 4.4.1 K.G. Wilcox (Southampton, UK)
Femtosecond pulse surface emitting quantum well semiconductor lasers
- 11.30-12.00 4.4.2 U. Griebner, P. Klopp, M. Zorn, and M. Weyers (Berlin, Germany)
Passively mode-locked InGaAs-AlGaAs disk laser generating pulse repetition rates close to 100 GHz or pulse durations in the 100 fs range
- 12.00-12.30 4.4.3 A. Dot, K. Bencheikh, B. Boulanger, A. Levenson, P. Segonds, and C. Félix (Grenoble, Marcoussis, France)
Demonstration of triple photon quantum correlations
- 12.30-12.45 4.4.4 K. van Dalfsen, D. Geskus, F. Ay, K. Wörhoff, S. Aravazhi, and M. Pollnau (Enschede, The Netherlands)
High-power Yb- and Tm-doped double tungstate channel waveguide lasers

12.45-14.00

Lunch

Seminar 4.5

Chair: K.G. Wilcox (UK)

- 14.00-14.30 4.5.1 D. Brida, C. Manzoni, D. Polli, and G. Cerullo (Milano, Italy)
Few-optical-cycle pulses tunable throughout the near and mid IR from optical parametric amplifiers
- 14.30-15.00 4.5.2 S.C. Bollig, H.J. Strauss, W. Koen, M.J.D. Esser, C. Jacobs, O.J.P. Collett, D.R. Preussler, and L.R. Botha (South Africa; Oldenburg, Germany)
High-energy narrow-band mid-infrared laser systems
- 15.00-15.30 4.5.3 E.H. Bernhardt, H.A.G.M. van Wolferen, K. Wörhoff, R.M. de Ridder, and M. Pollnau (Enschede, The Netherlands)
Efficient and ultra-narrow-linewidth integrated waveguide lasers in Al₂O₃:Yb and Al₂O₃:Er
- 15.30-16.00 4.5.4 J.-E. Broquin, B. Charlet, and L. Bastard (Grenoble, France)
CW and pulsed integrated lasers on glass substrate
- 16.00-16.15 4.5.5 M. Segura, X. Mateos, M.C. Pujol, J.J. Carvajal, U. Griebner, V. Petrov, M. Aguiló, and F. Díaz (Tarragona, Spain; Berlin, Germany)
Diode-pumped 2- μ m vibronic (Tm,Yb):KLu(WO₄)₂ laser

16.15-16.45

Coffee break

Seminar 4.6

Chair: G. Cerullo (Italy)

- 16.45-17.15 4.6.1 J. Kawanaka, H. Furuse, D. Albach, A. Yoshida, T. Kawashima, and H. Kan (Yamadaoka, Shizuoka, Japan; Palaiseau, France)
Cryogenic total-reflection active-mirror laser for high-power ultrafast pulses
- 17.15-17.45 4.6.2 M. Ebrahim-Zadeh (Barcelona, Spain)
Advances in optical parametric oscillators

- 17.45-18.15 4.6.3 P.A. Loiko, K.V. Yumashev, N.V. Kuleshov, and A.A. Pavlyuk
(Minsk, Belarus; Novosibirsk, Russia)
Thermo-optic coefficients dispersion in double tungstate laser hosts
- 18.15-18.30 4.6.4 M. Fridman, M. Nixon, R. Pugatch, A.A. Friesem, and N. Davidson
(Rehovot, Israel)
Extreme value statistics in coupled lasers

Poster Session, Tuesday, July 12

Chair: V.B. Tsvetkov (Russia)

- P4.1 G.A. Koganov, D. Braunstein, E. Smolik, and R. Shuker (Beer Sheva, Israel)
Counterintuitive Gaussian pulse sequence in three-level ladder scheme
- P4.2 M.A. Melkumov, A.I. Frantovskaya, G.A. Bufetova, S.V. Firstov,
V.F. Khopin, A.N. Guryanov, I.A. Bufetov, and E.M. Dianov (Moscow,
N. Novgorod, Russia)
Quantum yield measurements in Bismuth-doped germanosilicate fibers
- P4.3 A.I. Trikshev, V.B. Tsvetkov, A.S. Kurkov, A.D. Lyashedko, and
V.F. Seregin (Moscow, Russia)
*Single-frequency laser diode master oscillator fiber preamplifier Nd:YAG
power amplifier laser system*
- P4.4 S.V. Kireev, I.G. Symanovsky, and S.L. Shnyrev (Moscow, Russia)
*Collisional relaxation of molecular iodine ^{127}I and ^{129}I isotopes states
excited by semiconductor laser in the 632-627 spectral region*
- P4.5 A.A. Karnaukhov, B.N. Lytochkin, V.B. Morozov, A.N. Olenin, and
D.V. Yakovlev (Moscow, Russia)
Jitter of active-passive mode locked pulse pumped picosecond lasers
- P4.6 V.B. Morozov, A.N. Olenin, and D.V. Yakovlev (Moscow, Russia)
Stable operation criteria for pulsed end-diode-pumped Nd:YAG lasers

Seminar 5
Nonlinear Optics & Spectroscopy

Wednesday, July 13

Seminar 5.1

Chair: V.A. Makarov (Russia)

- 11.00-11.25 5.1.1 D. Strickland (Waterloo, Canada), M. Chaturvedi (Bombay, India), Z. Cui, F.C. Turner, B. Tian, and J. Ackert (Waterloo, Canada)
Spectral properties of multi-frequency Raman generation
- 11.25-11.50 5.1.2 D. Abdollahpour, S. Suntsov, D.G. Papazoglou (Heraklion, Greece), A. Lotti, D. Faccio (Como, Italy), P. Panagiotopoulos (Heraklion, Greece), A. Couairon (Palaiseau, France), and S. Tzortzakis (Heraklion, Greece)
Nonlinear propagation of intense femtosecond Airy beams in transparent media
- 11.50-12.15 5.1.3 P. Polynkin, C. Ament, S. Shiffler, M. Kolesik, E. Wright, and J. Moloney (Tucson, USA)
Experimental program on ultrafast laser filamentation at the University of Arizona
- 12.15-12.40 5.1.4 W. Li and H. Zeng (Shanghai, China)
Carrier-envelope-phase stabilization of a high-power fiber chirped pulse amplifier
- 12.40-13.05 5.1.5 L. Berge (Arpajon, France), Ch.-Louis Soulez, Ch. Kohler, and S. Skupin (Berlin, Germany)
Carrier-envelope phase in filamentation: Influence on the pulse propagation dynamics and stability
- 13.05-14.00 **Lunch**

Seminar 5.2

Chair: S.L. Chin (Canada)

- 14.00-14.25 5.2.1 P. Béjot, E. Hertz (Dijon, France), J. Kasparian (Geneve, Switzerland), B. Lavorel, O. Faucher (Dijon, France), and J.-P. Wolf (Geneve, Switzerland)
Transition from plasma- to Kerr-driven laser filamentation
- 14.25-14.50 5.2.2 C. Brée, A. Demircan, and G. Steinmeyer (Berlin, Germany)
Saturation of the all-optical Kerr effect
- 14.50-15.15 5.2.3 O. Kosareva (Moscow, Russia), J.-F. Daigle (Quebec, Canada), N. Panov (Moscow, Russia), T. Wang, S. Hosseini, S. Yuan, G. Roy (Quebec, Canada), V. Makarov (Moscow, Russia), and S.L. Chin (Quebec, Canada)
The effect of the higher-order Kerr terms on conical emission in femtosecond air filaments
- 15.15-15.30 5.2.4 A.M. Popov, O.V. Tikhonova, and E.A. Volkova (Moscow, Russia)
Nonlinear polarization response of an atomic system in an intense femtosecond laser pulse
- 15.30-15.55 5.2.5 W. Liu (Tianjin, China)
Pulse characterization based on two-photon fluorescence measurement during femtosecond laser filamentation in air
- 15.55-16.20 5.2.6 B. Alonso, O. Varela, I.J. Sola, J. San Roman, and L. Roso (Salamanca, Spain)
Direct observation of the filament dynamics in air
- 16.20-16.45 **Coffee break**

Seminar 5.3

Chair: D. Strickland (Canada)

- 16.45-17.10 5.3.1 A.A. Golubkov and V.A. Makarov (Moscow, Russia)
Angle-domain spectroscopy of one-dimensionally inhomogeneous nonlinear media with frequency dispersion
- 17.10-17.35 5.3.2 P.M. Lushnikov and N. Vladimirova (Albuquerque, USA)
Statistics of multiple filamentation of strong optical turbulence
- 17.35-18.00 5.3.3 B. Shim, S.E. Schrauth, and A.L. Gaeta (Ithaca, NY, USA)
Loss-of-phase with high-power collapsing beams
- 18.00-18.25 5.3.4 T. Fujii and Y. Nomura (Okazaki, Japan)
Ultrabroadband mid-infrared source based on four-wave mixing in gases
- 18.25-18.50 5.3.5 I. Babushkin (Berlin, Germany), C. Köhler, J. Herrmann (Berlin, Germany), L. Bergé (Arpajon, France), and S. Skupin (Berlin, Germany)
Brunel-type THz and far infrared radiation due to photoionization by strong multicolor optical fields
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Thursday, July 14

Seminar 5.4

Chair: L. Bergé (France)

- 11.00-11.25 5.4.1 Y.S. Kivshar (Canberra, Australia)
Nonlinear effects in metamaterials and plasmonic waveguides
- 11.25-11.50 5.4.2 P.P. Beličev (Belgrade, Serbia), A. Kanshu, I. Ilić, C.E. Rüter, G. Gligorić (Dresden, Germany), A. Maluckov, D. Kip, and M. Stepić (Belgrade, Serbia)
Strongly localized modes in one-dimensional photonic lattices with alternating couplings
- 11.50-12.15 5.4.3 D. Jukić, D. Čapeta, and H. Buljan (Zagreb, Croatia)
Classical and quantum correlations in nonlinear optical systems
- 12.15-12.40 5.4.4 V. Konotop and A. Yulin (Lisboa, Portugal)
Generation of spatial solitons by a localized active cluster
- 12.40-13.05 5.4.5 D.M. Jović, C. Denz, M.R. Belić (Zagreb, Croatia), and Y.S. Kivshar (Canberra, Australia)
Anderson localization of light in optically induced photonic lattices
- 13.05-14.00 **Lunch**

Seminar 5.5

Chair: S. Tzortzakakis (Greece)

- 14.00-14.25 5.5.1 K. Miyazaki, K. Yoshii, and G. Miyaji (Kyoto, Japan)
Retrieving angle-dependent high-order harmonic generation for a single molecule
- 14.25-14.50 5.5.2 T. Fujii, D. Suzuki, S. Yamasaki, S. Eto, A. Zhidkov, E. Hotta, and K. Nemoto (Kanagawa, Japan)
Fluorescence of nitrogen in laser-induced filament plasma generated in an external electric field
- 14.50-15.15 5.5.3 H. Xu (Jilin, China), T. Okino, K. Nakai, and K. Yamanouchi (Tokyo, Japan)
Tracing hydrogen atom migration in allene and methanol in intense laser fields
- 15.15-15.40 5.5.4 N. Nakashima (Nagakute, Japan) and T. Yatsushashi (Tokyo, Japan)
Highly charged ions from large molecules by intense femtosecond laser pulses

- 15.40-16.05 5.5.5 M. Petrarca (Geneve, Switzerland), P. Rohwetter, K. Stelmaszczyk (Berlin, Germany), Z.Q. Hao, S. Henin, N. Lascoux, W.M. Nakaema, Y. Petit, M. Queißer, R. Salamé, E. Salmon, J. Kasparian (Geneve, Switzerland), L. Wöste (Berlin, Germany), and J.-P. Wolf (Geneve, Switzerland)
Laser-induced water condensation in air
- 16.05-16.30 5.5.6 J. Liu, J. Ju, C. Wang, W. Wang (Shanghai, China), W. Liu (Nankai, China), S.L. Chin (Quebec, Canada), A. Xia, F. Kong, R. Li, and Zh. Xu (Shanghai, China)
Laser-filamentation-assisted water condensation in a cloud chamber
- 16.30-16.45 **Coffee break**
- Seminar 5.6**
Chair: Y.S. Kivshar (Australia)
- 16.45-17.10 5.6.1 V.G. Arakcheev, V.N. Bagratashvili, I.R. Farizanov, V.B. Morozov, and V.K. Popov (Moscow, Russia)
Nonlinear spectroscopic diagnostics of near-critical fluids in pores of synthetic nanocomposite materials
- 17.10-17.35 5.6.2 Y. Ozeki and K. Itoh (Osaka, Japan)
Stimulated Raman scattering microscopy system for observing live cells
- 17.35-18.00 5.6.3 M. Kauranen, M.J. Huttunen, J. Mäkitalo, and G. Bautista (Tampere, Finland)
Towards vectorial nonlinear optical microscopy
- 18.00-18.25 5.6.4 L. Haizer, I. Bugar, D. Lorenc, F. Uhrek (Bratislava, Slovak Republic), A.M. Zheltikov (Moscow, Russia), E. Goulielmakis, and F. Krausz (Garching, Germany)
Ionization assisted nonlinear spectral broadening of femtosecond Cr:Forsterite pulses in high pressure gas media
- 18.25-18.50 5.6.5 M. Patachia, D.C.A. Dutu, S. Banita, and D.C. Dumitras (Bucharest, Romania)
Near infrared spectroscopy system for dynamic and static measurements of blood characteristics in a liquid phantom

Friday, July 15

Seminar 5.7

Chair: W. Liu (China)

- 09.00-09.25 5.7.1 Ya. Cheng and Zh. Xu (Shanghai, China)
Nonlinear femtosecond laser application in advanced micromachining
- 09.25-09.50 5.7.2 A. Jaron-Becker (Boulder, USA), J.-F. Daigle, S. Hosseini, T.-J. Wang, Y. Kamali, G. Roy (Quebec, Canada), A. Becker (Boulder, USA), and S. L. Chin (Quebec, Canada)
Intensity clamping measurement of laser filaments in air at 400 and 800 nm
- 09.50-10.05 5.7.3 A.A. Dergachev, V.N. Kadan (Kiev, Ukraine), and S.A. Shlenov (Moscow, Russia)
Interaction of non-parallel coherent femtosecond laser filaments
- 10.05-10.30 5.7.4 S.V. Zaboltnov, S.M. Afonina, E.D. Maslennikov (Moscow, Russia), M.A. Kopylovsky, Yu.V. Gromov, V.Ya. Gayvoronsky (Kiev, Ukraine), L.A. Golovan, V.Yu. Timoshenko, and P.K. Kashkarov (Moscow, Russia)
Enhanced nonlinear-optical refraction and all-optical switching in mesoporous silicon based structures

Seminar 5.8

Chair: S.V. Zaboltnov (Russia)

- 11.00-11.25 5.8.1 N.E. Kotova, V.I. Kovalev, and R.G. Harrison (Edinburgh, UK; Moscow, Russia)
Acoustic wave inertia vs “slow light” in SBS: Experimental study of the Stokes pulse dynamics
- 11.25-11.50 5.8.2 A. Choudhary, J. McLenaghan, S. Kehr, U. Leonhardt, and F. Koenig (St. Andrews, UK)
Mode conversion at optical event horizons in fibers
- 11.50-12.15 5.8.3 N. Davidson, O. Firstenberg, M. Shuker, R. Pugatch, and A. Ron (Rehovot, Israel)
Spectroscopy and dynamics of slow and stored light
- 12.15-12.30 5.8.4 M. Bišćan and S. Milošević (Zagreb, Croatia)
Study of backscattered atoms within laser produced plasma plume
- 12.30-12.45 5.8.5 M.G. Gladush, D.V. Kuznetsov (Troitzk, Russia), and A.M. Lemeza (Minsk, Belorussia)
Steady-state and transient fluorescence spectra in a view over intrinsic optical bistability
- 12.45-13.00 5.8.6 Z. Kregar, M. Bišćan, and S. Milošević (Zagreb, Croatia)
Spectroscopy of cold plasmas during treatment of polymers under laser irradiation

Poster Session, Tuesday, July 12

Chair: A.A. Dergachev (Russia)

- P5.1 M. Belić (Doha, Qatar) and W. Zhong (Shunde, China)
Analytical solutions to the multidimensional generalized nonlinear Schrödinger equation and their stability
- P5.2 L. Bistričić, V. Borjanović, and L. Mikac (Zagreb, Croatia)
Micro-Raman Spectroscopy of poly (dimethylsiloxane) ZnO nanocomposites
- P5.3 V. Trofimov, O. Matusевич, D. Smotrov, M. Fedotov (Moscow, Russia), and Sh. Lan (Guangdong, China)
Mode of optical pulse propagation with self-similar shape in medium with nonlinear absorption
- P5.4 E.O. Smetanina, A.E. Dormidonov, and V.P. Kandidov (Moscow, Russia)
Splitting and compression of femtosecond laser pulse in filament in fused silica
- P5.5 E.L. Surmenko, T.N. Sokolova, and I.A. Popov (Saratov, Russia)
Migration of impurities in laser weld joints with different matrix studied by LIBS
- P5.6 A.J. Torregrosa, H. Maestre, and J. Capmany (Alicante, Spain)
Tunable and simultaneous multiple-wavelength conversion of 1550 nm signals in Cr^{3+} :LiCAF – PPSLT lasers
- P5.7 E. Igesti, R. Buffa, L. Fini, E. Sali, M.V. Tognetti, and S. Cavalieri (Florence, Italy)
All-optical control of the group velocity, central frequency and spectral bandwidth of a laser pulse by electromagnetically-induced transparency
- P5.8 E. Igesti, M.V. Tognetti, R. Buffa, L. Fini, E. Sali, F. Tommasi, and S. Cavalieri (Florence, Italy)
Control of slow and fast light by incoherent interactions in atomic schemes

- P5.9 M. Petrovic (Zagreb, Croatia)
Beam propagation in highly nonlocal scalar nematic liquid crystals
- P5.10 V.I. Kovalev and R.G. Harrison (Edinburgh, UK; Moscow, Russia)
Slow light in SBS: on the irrelevance of Kramers-Kronig relations to Stokes pulse delay

Seminar 6
Physics of Cold Trapped Atoms

Monday, July 11

Seminar 6.1

Chairs: N. Davidson (Israel) and E. Zaremba (Canada)

11.00-11.30 6.1.1 B. Svistunov (Amherst, USA), K. van Houcke (Amherst, USA; Ghent, Belgium), F. Werner (Amherst, USA; Paris, France), E. Kozik (Zurich, Switzerland), N. Prokof'ev (Amherst, USA), M. Ku, A. Sommer, L. Cheuk, A. Schirotzek, and M. Zwierlein (Cambridge, USA)

Equation of state of the unitary Fermi gas: precision measurements and bold diagrammatic Monte Carlo

11.30-12.00 6.1.2 P. Hannaford, E.D. Kuhnle, P. Dyke, S. Hoinka, H. Hu, X.-J. Liu, P.D. Drummond, and C.J. Vale (Melbourne, Australia)

Bragg spectroscopy of a unitary ultracold Fermi gas

12.00-12.20 6.1.3 Y. Li and S. Stringari (Povo, Italy)

Universal contact and collective oscillations of a strongly interacting Fermi gas

12.20-12.40 6.1.4 K.M.F. Magalhães, E.E. Pedrozo, R.R. Paiva, and V.S. Bagnato (São Carlos, Brazil)

Two-photon absorption in pairs of sodium atoms in a MOT

12.45-14.00

Lunch

Seminar 6.2

Chairs: P. Hannaford (Australia) and B. Svistunov (USA)

14.00-14.30 6.2.1 L. Salasnich (Padova, Italy)

Population imbalance and condensate fraction with SU(3) superfluid fermions

14.30-15.00 6.2.2 J. Brand and R. Liao (Auckland, New Zealand)

Dark solitons in superfluid Fermi gases

15.00-15.30 6.2.3 J. Zakrzewski (Cracow, Poland)

Extraction of information from dynamics for strongly correlated systems

15.30-16.00 6.2.4 A. Trombettoni (Trieste, Italy)

Non-abelian anyons with ultracold atoms in artificial gauge potentials

16.00-16.10

Discussion

16.15-16.45

Coffee Break

Seminar 6.3

Chairs: J. Brand (New Zealand) and L. Salasnich (Italy)

16.50-17.20 6.3.1 Ö.E. Müstecaplıoğlu (Istanbul, Turkey), B. Öztıp, and H.E. Türeci (Princeton, USA)

Superradiant structural phase transitions of an atomic condensate in an optical cavity

17.20-17.50 6.3.2 J. Schmitt, J. Klaers, T. Damm, F. Vewinger, and M. Weits (Bonn, Germany)

Bose-Einstein condensation of photons in an optical microcavity

17.50-18.20 6.3.3 D. Tarhan (Şanlıurfa, Turkey)

Lensing properties of ultraslow pulses in an atomic Bose-Einstein condensate

18.20-18.40 6.3.4 D. Jukić and H. Buljan (Zagreb, Croatia)

Non-equilibrium dynamics of exactly solvable one-dimensional many-body Bose systems

18.40-18.50

Discussion

Tuesday, July 12

Seminar 6.4

Chairs: V. Balykin (Russia) and W. von Klitzing (Greece)

- 11.00-11.30 6.4.1 N. Davidson, Y. Sagi, I. Almog, and R. Pugatch (Rehovot, Israel)
Anomalous diffusion of atoms in a 1D damped lattice
- 11.30-12.00 6.4.2 E. Arimondo (Pisa, Italy)
Rydberg excitation in optical lattices
- 12.00-12.20 6.4.3 C. Weitenberg, M. Enders, J.F. Sherson, V. Cheneau, P. Schauss,
T. Fukuhara, I. Bloch, and S. Kuhr (Garching, Germany)
Single-spin addressing in an atomic Mott insulator
- 12.20-12.40 6.4.4 G. Ferrini, D. Spehner, A. Minguzzi, and F.W.J. Hekking (Grenoble,
France)
*Effect of phase noise on useful quantum correlations in Bose Josephson
junctions*
- 12.45-14.00 **Lunch**

Seminar 6.5

Chairs: A. Trombettoni (Italy) and J. Zakrzewski (Poland)

- 14.00-14.30 6.5.1 W. von Klitzing, M. Pappa, P.C. Condylis, M. Baker, D. Sahagún
Sánchez, A. Lazoudis, G. Konstantinidis, and O. Morizot (Heraklion, Greece)
Imaging ultra-low atom numbers for matter-wave optics
- 14.30-15.00 6.5.2 V.I. Balykin (Troitsk, Russia)
Atom femto trap and its application for quantum metrology
- 15.00-15.30 6.5.3 E. Haller, M.J. Mark, J.G. Danzl, M. Rabie, K. Lauber, G. Pupillo,
and H.-C. Nägerl (Innsbruck, Austria)
Three-body loss and three-particle correlations in one-dimensional systems
- 15.30-16.00 6.5.4 T. Bourdel, M. Robert-de-Saint-Vincent, B. Allard, T. Plisson,
J.-P. Brantut, L. Pezde L. Sanchez-Palencia, A. Aspect, and P. Bouyer
(Paris, France)
Disorder effects in two dimensions
- 16.00-16.10 **Discussion**
- 16.10-16.45 **Coffee break**

Seminar 6.6

Chairs: T. Bourdel (France) and Ö. E. Müstecaplıoğlu (Turkey)

- 16.50-17.20 6.6.1 E. Zaremba and Z. Wu (Kingston, Canada)
Dissipative dynamics of a harmonically confined Bose-Einstein condensate
- 17.20-17.50 6.6.2 K. Ziegler (Augsburg, Germany)
Spectral fragmentation and dynamical entanglement in small atomic systems
- 17.50-18.20 6.6.3 M. Ueda (Tokyo, Japan)
Symmetry breaking and topological excitations in ultracold atomic gases
- 18.20-18.40 6.6.4 S. Safaei (Ankara, Turkey), Ö. E. Müstecaplıoğlu (Istanbul, Turkey),
and B. Tanatar (Ankara, Turkey)
Bistable behavior of two-mode Bose-Einstein condensate in optical cavity
- 18.40-18.50 **Discussion**

Wednesday, July 13

Seminar 6.7

Chairs: V. Galitski (USA) and K. Ziegler (Germany)

- 11.00-11.30 6.7.1 C. Sa de Melo (Atlanta, USA)
Quantum phases of dipolar molecules

- 11.30-12.00 6.7.2 A. Pelster (Bielefeld and Duisburg, Germany) and C. Krumnow (Berlin, Germany)
Dipolar Bose-Einstein condensates with weak disorder
- 12.00-12.20 6.7.3 R.A. Williams, L.J. LeBlanc (Gaithersburg, USA), K. Jimenez-Garcia (Gaithersburg, USA; Mexico, Mexico), M.C. Beeler, A.R. Perry, and I.B. Spielman (Gaithersburg, USA)
Higher order partial waves in a Bose-Einstein condensate
- 12.20-12.40 6.7.4 P.M. Lushnikov (Albuquerque, USA)
Collapse and stable self-trapping for Bose-Einstein condensates with $1/r^b$ type attractive interatomic interaction potential
- 12.45-14.00 **Lunch**
- Seminar 6.8**
Chairs: E. Arimondo (Italy) and C. Sa de Melo (USA)
- 14.00-14.30 6.8.1 V. Galitski (Maryland, USA)
Spin-orbit-coupled Bose-Einstein condensates
- 14.30-15.00 6.8.2 E.A. Ostrovskaya, J. Abdullaev, and A. Desyatnikov (Canberra, Australia)
Bose-Einstein condensates with orbital angular momentum: Collapse suppression and bistability
- 15.00-15.30 6.8.3 C. Gabbanini (Pisa, Italy)
Formation of ultracold RbCs dimers by photoassociation
- 15.30-16.00 6.8.4 I.B. Mekhov (Cambridge, USA; Oxford, UK)
Quantum optics of ultracold molecular and atomic gases
- 16.00-16.10 **Discussion**
- 16.15-16.45 **Coffee break**
- Seminar 6.9**
Chairs: J. Liu (China) and V. Penna (Italy)
- 16.50-17.20 6.9.1 L.-B. Fu (Beijing, China)
Berry phase and Hanny angle in an atom-molecule conversion system
- 17.20-17.50 6.9.2 O.E. Alon (Tivon, Israel), A.I. Streltsov, and L.S. Cederbaum (Heidelberg, Germany)
Death of soliton trains by fragmentation in attractive Bose-Einstein condensates
- 17.50-18.20 6.9.3 P. Deuar, E. Witkowska, M. Gajda, and K. Rzażewski (Warsaw, Poland)
Solitons as the early stage of quasicondensate formation during evaporative cooling
- 18.20-18.50 **Discussion**

Thursday, July 14

Seminar 6.10

Chairs: Y. Castin (France) and B. Wu (China)

- 11.00-11.30 6.10.1 V.S. Bagnato, R.F. Shiozaki, G.D. Telles (São Carlos, Brazil), and V.I. Yukalov (Dubna, Russia)
Transition to quantum turbulence in finite-size superfluids
- 11.30-12.00 6.10.2 T. Calarco (Ulm, Germany)
Atomic quantum technologies taken to the (speed) limit
- 12.00-12.20 6.10.3 A. Yulin, V. Konotop (Lisboa, Portugal), M. Salerno (Fisciano, Italy), and V. Kuzmiak (Praha, Czech Republic)
Superfluidity of Bose-Einstein condensates in annular system with periodic nonlinear inter-atom interactions

12.20-12.40	6.10.4 <u>S. Kobayashi</u> , M. Kobayashi, Y. Kawaguchi (Tokio, Japan), M. Nitta (Kanagawa, Japan), and M. Ueda (Tokio, Japan) <i>Abe homotopy classification of topological excitations under the influence of vortices</i>
12.45-14.00	Lunch
Seminar 6.11	
Chairs: V.S. Bagnato (Brazil) and T. Calarco (Germany)	
14.00-14.30	6.11.1 <u>B. Wu</u> (Beijing, China) and H. Xiong (Wuhan, China) <i>Universal behaviour of quantum chaotic gas</i>
14.30-15.00	6.11.2 <u>V.A. Yurovsky</u> , A. Ben-Reuven (Tel Aviv, Israel), and M. Olshanii (Boston, USA) <i>Memory of the initial conditions and dynamics of relaxation in an incompletely-chaotic quantum system</i>
15.00-15.30	6.11.3 <u>J. Dziarmaga</u> , M. Tylutki (Kraków, Poland), and W.H. Zurek (Los Alamos, USA) <i>A ring of BEC pools as a trap for persistent flow</i>
15.30-16.00	6.11.4 J. Liu (Beijing, China) <i>Adiabatic theory and nonlinear Berry phase for Bose-Einstein condensate</i>
16.00-16.10	Discussion
16.15-16.45	Coffee break
Seminar 6.12	
Chairs: O.E. Alon (Israel) and K. Das (USA)	
16.50-17.20	6.12.1 <u>V. Penna</u> (Torino, Italy), B. Capogrosso-Sansone (Cambridge, USA), and M. Guglielmino (Torino, Italy) <i>Ising antiferromagnet with ultracold bosonic mixtures confined in a harmonic trap</i>
17.20-17.50	6.12.2 <u>D. Gallucci</u> , S.P. Cockburn, and N.P. Proukakis (Newcastle, UK) <i>Fluctuations in quasi-one-dimensional Bose gases via the stochastic Gross-Pitaevskii equation</i>
17.50-18.20	6.12.3 <u>J.A. Seman</u> , P. Castilho, K.M.F. Magalhães, S.R. Muniz, V.S. Bagnato (São Carlos, Brazil), V.I. Yukalov (Dubna, Russia), and R.G. Hulet (Houston, USA) <i>Granulation of a Bose-Einstein condensate during oscillatory excitations</i>
18.20-18.40	6.12.4 <u>E.R.F. Ramos</u> , M.A. Caracanhas, R.P. Teles (São Carlos, Brazil), A. Pelster (Duisburg, Germany), and V.S. Bagnato (São Carlos, Brazil) <i>Coupling collective modes in a trapped superfluid</i>
18.40-18.50	Discussion

Friday, July 15

Seminar 6.13

Chairs: A. Pelster (Germany) and M. Ueda (Japan)

09.00-09.30	6.13.1 <u>Y. Castin</u> , C. Mora, and L. Pricoupenko (Paris, France) <i>Four-body Efimov effect</i>
09.30-10.00	6.13.2 <u>N. Dupuis</u> and A. Rancon (Paris, France) <i>Equation of state of strongly-correlated bosons: Lee-Huang-Yang corrections near the Mott transition</i>
10.00-10.30	6.13.3 <u>K. Sacha</u> and M. Plodzien (Krakow, Poland) <i>Atom random laser</i>
10.30-11.00	Coffee break

Seminar 6.14

Chairs: V.A. Yurovsky (Israel) and L.-B. Fu (China)

- 11.00-11.30 6.14.1 K. Das (Kutztown, USA)
Quantum versus classical features in atomtronics transport involving time-varying potentials
- 11.30-12.00 6.14.2 V.O. Nesterenko, A.N. Novikov (Dubna, Russia), and E. Suraud (Toulouse, France)
Tunneling and transport dynamics of Bose-Einstein condensate in a double-well trap
- 12.00-12.30 6.14.3 Ch. Weiss, M. Esmann, and N. Teichmann (Oldenburg, Germany)
Fractional photon-assisted tunnelling of ultra-cold atoms in periodically shaken double-well lattices
- 12.30-12.40 **Discussion**
- 12.45-14.00 **Lunch**
- 14.00-14.15 **Closing remarks**

Poster Session, Tuesday, July 12

Chair: V.I. Yukalov (Russia)

- P6.1 V.S. Bagnato, V. Romero-Rochin, R.F. Shiozaki, M. Caracanhas, E.A.L. Henn, K.M.F. Magalhães (São Carlos, Brazil), and G. Roati (Sesto Fiorentino, Italy)
BEC phase diagram of a ^{87}Rb trapped gas in terms of macroscopic thermodynamic parameters
- P6.2 M.A. Caracanhas (Sao Carlos, Brazil), N.G. Berloff (Cambridge, UK), E.R.F. Ramos, R.P. Teles, and V.S. Bagnato (São Carlos, Brazil)
Vortices and turbulence in a two-component system
- P6.3 M. Lacki (Cracow, Poland)
The MPS Fourier techniques applied to cold atom gases in optical lattices
- P6.4 A.N. Novikov, V.O. Nesterenko, A.Yu. Cherny (Dubna, Russia), and E. Suraud (Toulouse, France)
Tunneling and transport dynamics of multi-component Bose-Einstein condensate
- P6.5 A. Pelster (Bielefeld and Duisburg, Germany) and A.R.P. Lima (Berlin, Germany)
Quantum fluctuations in dipolar Bose gases
- P6.6 J. Pietraszewicz (Warsaw, Poland), T. Sowinski (Warsaw, Poland; Barcelona, Spain), and M. Gajda (Warsaw, Poland)
Two component Bose-Hubbard model with higher angular momentum states
- P6.7 R.P. Teles, M.A. Caracanhas, E.R.F. Ramos, and V.S. Bagnato (São Carlos, Brazil)
Dynamic of a single vortex in Bose-Einstein condensate
- P6.8 V.I. Yukalov and E.P. Yukalova (Dubna, Russia)
Thermodynamics of double-well optical lattices with mesoscopic disorder

Seminar 7
Quantum Information Science

Monday, July 11

Seminar 7.1

Chair: L.C. Kwek (Singapore)

- 11.00-11.30 7.1.1 U.L. Andersen, A. Huck, and S. Kumar (Lyngby, Denmark)
Nonclassical states on a nanowire
- 11.35-12.05 7.1.2 D.W. Berry and A.I. Lvovsky (Calgary, Canada)
Quantum efficiency of an optical state: a general theory
- 12.10-12.40 7.1.3 S. Barzanjeh, D. Vitali, P. Tombesi (Camerino, Italy), and G. Milburn (Saint Lucia, Australia)
Entangling optical and microwave cavity modes
- 12.45-14.00 **Lunch**

Seminar 7.2

Chair: A. Lvovsky (Canada)

- 14.00-14.30 7.2.1 L.C. Kwek, Y. Li (Singapore, Singapore), D.E. Browne (London, UK), R. Raussendorf, and T-C. Wie (Vancouver, Canada)
Thermal state measurement-based quantum computation
- 14.35-15.05 7.2.2 C. Macchiavello, M. Rossi (Pavia, Italy), and D. Bruss (Dusseldorf, Germany)
Multipartite entanglement in quantum algorithms
- 15.10-15.40 7.2.3 J.-L. Chen, H.-Y. Su, D.-L. Deng (Tianjin, China), C. Wu, and C.H. Oh (Singapore, Singapore)
Testing Leggett's inequality using Aharonov-Casher effect
- 15.45-16.15 7.2.4 R. Colbeck (Waterloo, Canada), R. Renner (Zurich, Switzerland), T. Stuart, J. Slater, and W. Tittel (Calgary, Canada)
An experimental test of all theories with predictive power beyond quantum theory
- 16.15-16.45 **Coffee break**

Seminar 7.3

Chair: P. Mataloni (Italy)

- 16.45-17.15 7.3.1 R. Keil, F. Dreisow, M. Heinrich, S. Nolte (Jena, Germany), and A. Szameit (Haifa, Israel)
Correlated quantum random walks in non-uniform photonic lattices
- 17.20-17.50 7.3.2 M. Fujiwara, H.-Q. Zhao, A. Tanaka, H. Takashima, K. Toubaru, T. Noda, and S. Takeuchi (Sapporo, Osaka, Japan)
Solid-state photonic quantum phase gates by using fiber-microsphere cavity and diamond NV centers
- 17.55-18.25 7.3.3 F. Ciccarello (Pisa, Italy)
Resonant atom-field interaction in large-size coupled-cavity arrays
- 18.30-18.50 7.3.4 R. Migliore (Palermo, Italy)
Dissipative effects on the entanglement dynamics in Josephson architectures

Tuesday, July 12

Seminar 7.4

Chair: M. Genovese (Italy)

- 11.00-11.30 7.4.1 K. Dobek, K. Banaszek (Torun, Poland), M. Karpinski, R. Demkowicz-Dobrzanski (Warsaw, Poland), and P. Horodecki (Gdansk, Poland)
Experimental extraction of secure correlations from a noisy private state
- 11.35-12.05 7.4.2 K. Dobek, K. Banaszek (Torun, Poland), M. Karpinski, R. Demkowicz-Dobrzanski (Warsaw, Poland), and P. Horodecki (Gdansk, Poland)
Experimental generation of complex noisy photonic entanglement
- 12.10-12.40 7.4.3 J. Fiurášek (Olomouc, Czech Republic)
Simultaneous distillation and purification of entangled gaussian states
- 12.45-14.00 **Lunch**

Seminar 7.5

Chair: P. Tombesi (Italy)

- 14.00-14.25 7.5.1 N. Korolkova (St. Andrews, UK)
Quantum correlations beyond entanglement and Gaussian bound information
- 14.30-14.55 7.5.2 J.A. Bergou, U. Futschik, E. Feldman, G. Olivares-Renteira, and M. Nadeem (New York, USA)
A complete geometric view of the unambiguous discrimination problem of quantum states
- 15.00-15.25 7.5.3 M.V. Chekhova, I.N. Agafonov, T.Sh. Iskhakov, and G. Leuchs (Erlangen, Germany)
Macroscopic entanglement for bright squeezed vacuum
- 15.30-15.55 7.5.4 A. Pathak and A. Banerjee (Noida, India)
Quantitative measures of quality of quantum circuits
- 15.55-16.15 7.5.5 A. Streltsov, H. Kampermann, and D. Bruss (Duesseldorf, Germany)
Linking quantum discord to entanglement in a measurement
- 16.15-16.45 **Coffee break**

Seminar 7.6

Chair: D. Bruss (Germany)

- 16.45-17.15 7.6.1 K. Aungskunsiri, D. Bonneau, E. Engin, D. Fry, J. Hadden, P. Kalasuwan, J. Kennard, T. Lawson, L. Marseglia, E. Martin-Lopez, J. Matthews, J. Meinecke, A. Peruzzo, K. Poulios, P. Shadbolt, A. Stanley-Clark, M. Halder, J. Harrison, D. Ho, P. Jiang, A. Laing, M. Lobino, A. Politi, B. Patton, M. Rodas Verde, X-Q. Zhou, M. Cryan, J. Rarity, M. Thompson, S. Yu, and J. O'Brien (Bristol, UK)
Integrated quantum photonics
- 17.20-17.50 7.6.2 P. Mai, P. Pressl, M. Sassermaun, Z. Vörös (Innsbruck, Austria), A. Helmy, D. Kang (Toronto, Canada), R. Horn, and G. Weihs (Waterloo, Canada)
Semiconductor sources of photon pairs
- 17.55-18.25 7.6.3 R. Zambrini (Palma de Mallorca, Spain)
Synchronization and quantum correlations of dissipative oscillators

- 18.30-18.50 7.6.4 A.S. Sheremet, D.V. Kupriyanov (St.-Petersburg, Russia),
O.S. Mishina, M. Scherman, P. Lombardi, A. Bramati, J. Laurat, and
 E. Giacobino (Paris, France)
*Quantum state transfer between light and atoms via A -transition with
 multiple excited levels*
-

Wednesday, July 13

Seminar 7.7

Chair: M. Ridza Wahiddin (Malaysia)

- 11.00-11.30 7.7.1 G.M. D'Ariano (Pavia, Italy)
A quantum-digital universe in the optical lab
- 11.35-12.05 7.7.2 S.V. Polyakov, A. Muller, A. Ling, E.B. Flagg, A.L. Migdall,
 G.S. Solomon (Gaithersburg, USA), N. Rutter, and E. van Keuren
 (Washington, USA)
*Towards single-photon interfaces: creating indistinguishable photons from
 dissimilar sources*
- 12.10-12.40 7.7.3 L. Ma, O. Slattery, and X. Tang (Gaithersburg, USA)
*Single photon frequency up-conversion and its applications in quantum
 information systems*
- 12.45-14.00 **Lunch**

Seminar 7.8

Chair: G. D'ariano (Italy)

- 14.00-14.25 7.8.1 A. Becir, F.A.A. El-Orany, and M.R.B. Wahiddin (Kuala Lumpur,
 Malaysia)
*Continuous-variable quantum key distribution protocols with eight-state
 discrete modulation*
- 14.30-14.55 7.8.2 S.N. Molotkov (Chernogolovka, Russia)
Quantum cryptography with reference coherent states
- 15.00-15.25 7.8.3 S. Maniscalco (Turku, Finland)
Non-markovian quantum cryptography
- 15.30-15.55 7.8.4 V.C. Usenko and R. Filip (Olomouc, Czech Republic)
*Feasibility of continuous-variable quantum key distribution over fading
 channels*
- 15.55-16.15 7.8.5 Q-L. Wu, N. Namekata, T. Kono, and S. Inoue (Tokyo, Japan)
*High-efficiency single-photon detection using sinusoidally gated
 InGaAs/InP avalanche photodiode*
- 16.15-16.45 **Coffee break**

Seminar 7.9

Chair: Z. Hradil (Czech Republic)

- 16.45– 17.15 7.9.1 A. Chiuri, G. Vallone, and P. Mataloni (Roma, Italy)
Multipath and polarization entanglement of photons
- 17.20-17.50 7.9.2 T.Sh. Iskhakov, M.V. Chekhova, G.O. Rytikov, and G. Leuchs
 (Erlangen, Germany)
Polarization properties of the macroscopic Bell states
- 17.55-18.25 7.9.3 J. Svozilik, M. Hendrych, and J.P. Torres (Barcelona, Spain)
*Semiconductor Bragg reflection waveguides as source of entangled photon
 pairs: theory and experiments*

18.30-18.50 7.9.4 D. Sych and G. Leuchs (Erlangen, Germany)
Quantum uniqueness and objective randomness generation from quantum uncertainty

Thursday, July 14

Seminar 7.10

Chair: M. Genovese (Italy)

11.00 – 11.30 7.10.1 L.L. Sánchez-Soto (Madrid, Spain), Z. Hradil, J. Řeháček (Olomouc, Czech Republic), D. Sych, and G. Leuchs (Erlangen, Germany)

Full tomography from compatible measurements

11.35-12.05 7.10.2 R. Filip, L. Mišta, and L. Lachman (Olomouc, Czech Republic)
Detecting quantum states with positive Wigner function beyond mixtures of Gaussian states

12.10-12.40 7.10.3 A.B. U'Ren (Mexico city, Mexico)
Non-classical light sources with tailored properties

12.45-14.00 **Lunch**

Seminar 7.11

Chair: J. Howell (USA)

14.00-14.25 7.11.1 H.-G. Luo (Lanzhou, China), Q.-J. Tong, J.-H. An, and C.H. Oh (Singapore, Singapore)

New quantum phase transition in the spin-boson model

14.30-14.55 7.11.2 M. Genovese (Turin, Italy)
Optimal methods for characterising entangled states

15.00-15.25 7.11.3 P. Degiovanni, G. Brida, M. Genovese, F. Piacentini, I. Ruo Berchera (Torino, Italy), S.V. Polyakov, and A. Migdall (Gaithersburg, USA)
Source of heralded single-photons without post-selection

15.30-15.55 7.11.4 J. Howell (Rochester, USA)
Weak values and precision measurements

15.55-16.15 7.11.5 Z. Hradil and J. Řeháček (Olomouc, Czech Republic)
Tomography, information, ignorance and uncertainties

16.15-16.45 **Coffee break**

Seminar 7.12

Chair: P. Mataloni (Italy)

16.45-17.15 7.12.1 A. Pan and A. Matzkin (Cergy-Pontoise, France)
Non-ideal and weak measurements: generalized weak values and information theoretic applications

17.20-17.50 7.12.2 G. Harris, J. Knittel, W. Bowen (Brisbane, Australia), and U.L. Andersen (Lyngby, Denmark)
Feedback enhanced sensitivity in optomechanics: breaking the parametric instability barrier

17.55-18.25 7.12.3 A.C. Doherty (Sydney, Australia), A. Szorkovszky, B. Fairchild (Melbourne, Australia), G.I. Harris, J. Knittel, and W.P. Bowen (St. Lucia, Australia)
Optomechanics with electromechanical parametric amplification

18.30-18.50 7.12.4 L. Dai, Y.P. Feng, and L.C. Kwek (Singapore, Singapore)
Engineering quantum cloning through maximal entanglement between boundary qubits in an open spin chain

Friday, July 15

Seminar 7.13

Chair: Y.-H. Kim (Korea)

- 09.00-09.25 7.13.1 Y. Miyamoto (Chofu, Japan)
Non-classical correlations in orbital angular momentum of photons and atoms
- 09.30-09.55 7.13.2 M.V. Fedorov, P.A. Volkov, and J.M. Mikhailova (Moscow, Russia)
Polarization-frequency biphoton ququarts and mixed polarization biphoton states
- 10.00-10.25 7.13.3 L. Marrucci (Napoli, Italy), E. Nagali, V. D'Ambrosio, and F. Sciarrino (Firenze, Italy)
Higher quantum dimensionality by exploiting the photonic orbital angular momentum
- 10.30-11.00 **Coffee break**

Seminar 7.14

Chair: J. Bergou (USA)

- 11.00-11.30 7.14.1 M. Al-Amri (Riyadh, Saudi Arabia), J. Evers (Heidelberg, Germany), and M.S. Zubairy (College Station, USA)
Quantum teleportation of four-dimensional qudits
- 11.35-12.05 7.14.2 J.-L. Smir, R. Frey, I. Zaquine (Paris, France), A. Martin, F. Kaiser, V. D'Auria, O. Alibert, and S. Tanzilli (Nice, France)
Analysis of elliptically polarized, maximally entangled states
- 12.10-12.40 7.14.3 Z. Hradil, J. Řeháček, B. Stoklasa (Olomouc, Czech Republic), and L.L. Sánchez-Soto (Madrid, Spain)
The Shack-Hartmann tomography
- 12.45-14.00 **Lunch**

Seminar 7.15

Chair: J. O'Brian (UK)

- 14.30-14.55 7.15.1 M.V. Chekhova (Erlangen, Germany), D.A. Kalashnikov, S.H. Tan, and L.A. Krivitsky (Singapore, Singapore)
Revealing photon bunching with multi pixel photon counter
- 15.00-15.25 7.15.2 L.V. Gerasimov, I.M. Sokolov, D.V. Kupriyanov (St.-Petersburg, Russia), R.G. Olave, and M.D. Havey (Norfolk, USA)
Quantum memory via diffuse light storage in an ultracold atomic gas
- 15.30-15.55 7.15.3 A.S. Sheremet, A.S. Kuraptsev, I.M. Sokolov, and D.V. Kupriyanov (St.-Petersburg, Russia)
Cooperative light scattering from a dense atomic system and the effect of electromagnetically induced transparency
- 15.55-16.15 7.15.4 Y. Sagi, I. Almog, R. Pugatch, and N. Davidson (Rehovot, Israel)
Long-term quantum memories with dense atomic ensembles
- 16.15-16.45 **Coffee break**

Seminar 7.16

Chair: D. Kupriyanov (Russia)

- 16.45- 17.15 7.16.1 S.N. Andrianov, E.S. Moiseev, and S.A. Moiseev (Kazan, Russia)
Atomic quantum transistor for quantum processing in QED cavities
- 17.20-17.45 7.16.4 S.S. Straupe, I.B. Bobrov, and S.P. Kulik (Moscow, Russia)
Spatial Schmidt modes for biphoton light
- 17.45-17.50 S.P. Kulik
Closing remarks

Poster Session, Tuesday, July 12

Chair: S. Kulik (Russia)

- P7.1 Y.I. Bogdanov, I. Bukeev, S.P. Kulik, E.V. Moreva, K. Kravtsov (Moscow, Russia), G. Brida, M. Genovese, and A.P. Shurupov (Torino, Italy)
Statistical estimation of quantum tomography protocols quality
- P7.2 A.S. Sheremet, L.V. Gerasimov, I.M. Sokolov, and D.V. Kupriyanov (St.-Petersburg, Russia)
Cooperative scattering of light by a dense atomic system with degenerate structure of the ground state
- P7.3 M.V. Fedorov, P.A. Volkov, and J.M. Mikhailova (Moscow, Russia)
Schmidt modes of biphoton polarization-frequency ququarts
- P7.4 K.G. Katamadze, A.V. Paterova, and S.P. Kulik (Moscow, Russia)
Biphoton spectrum control via spatial modulation of the refractive indices of a nonlinear crystal

Seminar 8
Fiber lasers

Wednesday, July 13, 2011

Seminar 8.1

Chair: A.S. Kurkov (Russia)

- 11.00-11.30 8.1.1 S.A. Babin, A.E. El-Taher, P. Harper, D.V. Churkin, E.V. Podivilov, and S.K. Turitsyn (Novosibirsk, Russia; Birmingham, UK)
Spectral performance of multi-wavelength and tunable Raman fiber lasers based on the Rayleigh-scattering distributed feedback
- 11.30-11.45 8.1.2 D. Sáez-Rodríguez, J.L. Cruz, A. Díez, and M.V. Andrés (Valencia, Spain)
In-fiber mode engineering: a laser with combined core and cladding modes
- 11.45-12.00 8.1.3 B. Ibarra-Escamilla, E.A. Kuzin, O. Pottiez, J.W. Haus, Q. Zhan, P.E. Powers, and R. Zhou (Puebla, León, México; Dayton, USA)
Wavelength tunable double-clad Er:Yb doped high power fiber laser
- 12.00-12.15 8.1.4 I.A. Lobach, S.A. Babin, S.I. Kablukov, and E.V. Podivilov (Novosibirsk, Russia)
Broad-range self-sweeping of a narrow-line Yb-doped fiber laser
- 12.15-12.30 8.1.5 M.Z. Zulkifli, N.A. Hassan, S.W. Harun, and H. Ahmad (Kuala Lumpur, Malaysia)
S-, C-, and L-band wide band fiber laser
- 12.30-12.45 8.1.6 M. Fridman, M. Nixon, A.A. Friesem, and N. Davidson (Rehovot, Israel)
Fiber amplifiers of radially or azimuthally polarized light
- 12.45-14.00 **Lunch**

Seminar 8.2

Chair: S.K. Turitsyn (UK)

- 14.00-14.30 8.2.1 C. Cuadrado-Laborde, M. Bello-Jiménez, A. Díez, J.L. Cruz, and M.V. Andrés (Buenos Aires, Argentina; Valencia, Spain)
Actively mode-locked all-fiber lasers by in-fiber acousto-optic devices
- 14.30-15.00 8.2.2 D. Gaponov, S. Abbas, K. Ndao, A. Cabasse, T. Nguyen, J.-L. Oudar, and G. Martel (St. Etienne du Rouvray, France)
Up to 190 mW average power with pulses dechirpable down to 500 fs from an Erbium fiber oscillator passively mode-locked by a resonant SAM through optimization of the output coupling
- 15.00-15.15 8.2.3 B. Dussardier, J. Maria, and P. Peterka. (Nice, France; Prague, Czech Republic)
Ytterbium- and chromium-doped fiber laser: from chaotic self-pulsing to passive Q-switching
- 15.15-15.30 8.2.4 Ya.E. Sadovnikova, A.S. Kurkov, E.M. Sholokhov, and A.V. Marakulin (Moscow, Snezhinsk, Russia)
All-fiber Q-switched Er:Tm laser
- 15.30-15.45 8.2.5 M.B. Alsous, G. Afifi, P. Sigalotti, P. Cinquegrana, and M. Danailov (Syria; Giza, Egypt, Trieste, Italy)
Timing stability enhancement of an erbium doped mode locked fiber laser using SESAM mirror

- 15.45-16.00 8.2.6 V.V. Dvoyrin, D.S. Klimentov, I.T. Sorokina, V.L. Kalashnikov, V.M. Mashinsky, M.V. Yashkov, A.N. Guryanov, and E.M. Dianov. (Trondheim, Norway; Moscow, Russia; N.-Novgorod, Russia)
Highly Ge-doped fibers for ultrashort pulse fiber lasers
- 16.00-16.15 8.2.7 D.A. Sidorov-Biryukov, A.A. Voronin, A.A. Podshivalov, A.B. Fedotov, and A.M. Zheltikov (Moscow, Russia)
MHz fiber synthesizer of ultrashort pulses in near IR
- 16.15-16.45 **Coffee break**
- Seminar 8.3**
Chair: C. Cuadrado-Laborde (Argentina)
- 16.45-17.15 8.3.1 I. Razdobreev, H. El Hamzaoui, M. Bouazaoui, and V. Arion (Lille, France; Vienna, Austria)
Nano-engineered Bismuth-doped silica glasses
- 17.15-17.30 8.3.2 A.V. Kir'yanov, Yu.O. Barmenkov, L. Escalante Zarate, and A.D. Guzman-Chavez (Leon, Mexico; Moscow, Russia)
Concentration effects in erbium doped silica fibers
- 17.30-17.45 8.3.3 A.S. Kurkov, E.M. Sholokhov, V.B. Tsvetkov, and A.V. Marakulin (Moscow, Snezhinsk, Russia)
Concentration effects in Ho-doped fiber lasers
- 17.45-18.00 8.3.4 E.F. Pinzón-Escobar, A. Ramírez-Ibarra, J.C. Moreno-Hernández, and G.E. Sandoval-Romero (México, México)
Experimental results of the superluminescent fiber laser sources for fiber optic sensors
- 18.00-18.15 8.3.5 R.I. Álvarez-Tamayo, M. Durán-Sánchez, E.A. Kuzin, O. Pottiez, B. Ibarra-Escamilla, J.L. Cruz, and M.V. Andrés (Puebla, Leon, Mexico; Valencia, Spain)
Dual-wavelength tunable laser with superimposed fiber Bragg gratings

Thursday, July 14, 2011

Seminar 8.4

Chair: M.V. Andrés (Spain)

- 11.00-11.30 8.4.1 V. Kovalev (Edinburgh, UK)
A revised theoretical formalism for stimulated scattering
- 11.30-11.45 8.4.2 S. Randoux, N. Dalloz, and P. Suret (Lille, France)
Mechanisms of formation of the optical power spectrum in Raman fiber lasers
- 11.45-12.00 8.4.3 A.E. Bednyakova, M.P. Fedoruk, A.S. Kurkov, S.K. Turitsyn, and O.I. Medvedkov (Novosibirsk, Moscow, Russia; Birmingham, UK)
Modeling of CW Raman lasers with highly nonlinear cavity dynamics
- 12.00-12.15 8.4.4 D.V. Kharenko, S.A. Babin, E.V. Podivilov, O.V. Shtyrina, I.A. Yarutkina, and M.P. Fedoruk (Novosibirsk, Russia)
Highly-chirped dissipative solitons generated in the normal-dispersion fiber oscillator without spectral filtering
- 12.15-12.30 8.4.5 O. Pottiez, J.-C. Hernandez-Garcia, B. Ibarra-Escamilla, and E.A. Kuzin (Leon, Puebla, Mexico)
Dual-wavelength operation of a figure-eight fiber laser
- 12.30-12.45 8.4.6 P. Suret, C. Michel, A. Picozzi, and S. Randoux (Lille, Dijon, France)
Anomalous thermalization of nonlinear optical wave systems
- 12.45-14.00 **Lunch**

Seminar 8.5

Chair: B. Dussardier (France)

- 14.00-14.30 8.5.1 P. Leproux, V. Couderc, and G. Huss (Limoges, France)
Sub-nanosecond fiber-based supercontinuum sources and their biomedical applications
- 14.30-15.00 8.5.2 F. Anquez, I. El. Yazidi, S. Randoux, P. Suret, and E. Courtade (Lille, France)
Cancerous cell-death induced by a drug-free singlet oxygen photo-activation
- 15.00-15.15 8.5.3 E.L. Surmenko, T.N. Sokolova, A.V. Konyushin, I.A. Popov, A.S. Kurkov, and E.M. Sholokhov (Saratov, Moscow, Russia)
Surface modification of thin-film resistors with fiber lasers
- 15.15-15.30 8.5.4 P.Yu. Shcheglov, A.V. Gumenyuk, M. Rethmeier, S.A. Uspenskiy, V.N. Petrovskiy, and V.M. Yermachenko (Berlin, Germany; Moscow, Russia)
Influence of the welding plume on laser radiation during high power fiber laser welding
- 15.30-15.45 8.5.5 Yu.N. Pyrkov, A.S. Kurkov, V.B. Tsvetkov, A.I. Trikshev, and I.A. Shcherbakov (Moscow, Russia)
Active coherent beam combining of fiber lasers
- 15.45-16.00 8.5.6 S.W. Harun, K.S. Lim, and H. Ahmad (Kuala Lumpur, Malaysia)
Microfiber Knot resonator based sensors
- 16.15-16.45 **Coffee break**

Seminar 8.6

Chair: S.A. Babin (Russia)

- 16.45-17.15 8.6.1 C.J.S. de Matos (Sao Paulo, Brazil)
Light sources based on liquid filled photonic crystal fibers
- 17.15-17.30 8.6.2 H. Ahmad, S.W. Harun, K.S. Lim, A.A. Jasim, and S.S.A. Damanhuri (Kuala Lumpur, Malaysia)
Resonance condition of microfiber Knot resonator immersed in liquids
- 17.30-17.45 8.6.3 E.F. Pinzón-Escobar, A. Ramírez-Ibarra, and G.E. Sandoval-Romero (México, México)
Laser source implemented in erbium-doped fiber using a Sagnac resonator
- 17.45-18.00 8.6.4 A.S. Kurkov, V.A. Kamynin, E.M. Sholokhov, and A.V. Marakulin (Moscow, Snezhinsk, Russia)
Mid-IR supercontinuum generation in Ho-doped fiber amplifier

Poster Session, Tuesday, July 12

Chair: E.L. Surmenko (Russia)

- P8.1 P.Yu. Shcheglov, S.A. Uspenskiy, V.M. Yermachenko, A.P. Kuznetsov, V.N. Petrovskiy, and A.P. Streltsov (Berlin, Germany; Moscow, Russia)
Line and continuum emission spectroscopy of the high power ytterbium fiber laser welding plume under Ar and He shielding atmosphere
- P8.2 V.G. Shtamm, S.A. Uspenskiy, V.M. Yermachenko, P.Yu. Shcheglov, V.N. Petrovskiy, and A.P. Streltsov (Berlin, Germany; Moscow, Russia)
The robotized installation on the basis of the powerful fiber laser for restoration of the worn-out details in aviation and power industry
- P8.3 V.N. Petrovskiy, V.M. Yermachenko, V.D. Mironov, N.V. Naumov, P.S. Dzhumayev, V.I. Polsky, V.L. Yakushin, N.M. Prokopova, and P.Yu. Shcheglov (Berlin, Germany; Moscow, Russia)
Laser and plasma polishing of the titanium surface

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