

18th International Laser Physics Workshop (LPHYS'09)

July 13 – 17, 2009, Barcelona, Spain

PROGRAM



ICFO^R



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Poster Sessions
July 14, July 16: 19.00 - 20.00

Chairman: V.I. Yukalov (Russia)

- P6.1 M. Abad, M. Guilleumas, R. Mayol, M. Pi (Barcelona, Spain), and D.M. Jezek (Buenos Aires, Argentina)
Vortices in Bose-Einstein condensates with dominant dipolar interactions
- P6.2 E.S. Annibale, A. Gammal (Sao Paulo, Brazil), and K. Ziegler (Augsburg, Germany)
2D flow of a dense Bose-Einstein condensate
- P6.3 V.S. Bagnato, E.A.L. HeM.A. Caracanhas, J.A. Seman, E.R.F. Ramos, E.A.L. Henn, K.M.F. Magalhães (São Carlos, Brazil), and K. Helmerson (Gaithersburg, USA)
Finite temperature effects during expansion of a Bose-Einstein condensate
- P6.4 V.S. Bagnato, E.A.L. Henn, J.A. Seman (São Carlos, Brazil), G. Roati (Sesto Fiorentino, Italy), and K.M.F. Magalhães (São Carlos, Brazil)
Emergence of turbulence in an oscillating Bose-Einstein condensate
- P6.5 A. Bensey, S. Fernandez-Vidal, J. Bagudá, R. Corbián (Bellaterra, Spain), L. Rosso (Salamanca, Spain), and J. Mompart (Bellaterra, Spain)
Coherent manipulation of holes in dipole trap arrays
- P6.6 J. Böning (Kiel, Germany), A. Filinov (Kiel, Germany and Troitsk, Russia), M. Bonitz (Kiel, Germany), and Yu.E. Lozovik (Troitsk, Russia)
Local superfluidity in finite Coulomb and neutral systems
- P6.7 E.Yu. Il'inova, V.D. Ovsiannikov (Voronezh, Russia), H. Katori (Tokio, Japan), and K. Hashiguchi (Saitama, Japan)
M1 and E2 effects on a clock frequency in a 3D optical lattice on neutral atoms
- P6.8 O. Fialko (Augsburg, Germany), A. Gammal (Sao Paulo, Brazil), and K. Ziegler (Augsburg, Germany)
1/2-Spin Fermions in an optical lattice: Crossover from weak to strong attractive interaction
- P6.9 E.G. Khamis, A. Gammal (São Paulo, Brazil), G.A. El (Loughborough, UK), Yu.G. Gladush, and A.M. Kamchatnov (Troitsk, Russia)
General form of the diffraction pattern of light beams propagating in photorefractive media with embedded reflecting wire
- P6.10 A.N. Novikov and V.O. Nesterenko (Dubna, Russia)
Role of nonlinearity in generalized Landau-Zener transport scheme for Bose-Einstein condensate in two-well trap
- P6.11 A.Yu. Okulov (Moscow, Russia)
Quantum double helix
- P6.12 S. Tojo, T. Hayashi, E. Inoue, T. Tanabe, Y. Taguchi, and T. Hirano (Tokyo, Japan)
Selective phase-separations of binary Bose-Einstein condensates in mixed hyperfine states
- P6.13 M. Valiente (Crete, Greece and Berlin, Germany), D. Petrosyan (Crete, Greece), and A. Saenz (Berlin, Germany)
Few-body quantum dynamics in a lattice
- P6.14 V.I. Yukalov (Zurich, Switzerland and Dubna, Russia) and D. Sornette (Zurich, Switzerland)
Quantum decision procedures by active quantum systems

Friday, July 17

Seminar 2.10

Chair: J. Peatross (USA)

- 11.00-11.25 2.10.1 S. Saugout, E. Charron, and C. Cornaggia (Saclay, France; Orsay, France)
Laser-induced multiple ionization and imaging of molecular nuclear structures
- 11.25-11.50 2.10.2 W. Quan, X. Liu (Wuhan, P.R. China) and C.F.M. Faria (London, UK)
Non-sequential double ionization with polarization-gated pulses
- 11.50-12.15 2.10.3 S.L. Haan, Z.S. Smith, K.N. Shomsky, and P.W. Plantinga (Grand Rapids, MI, USA)
Classical modeling of non-sequential double ionization: recollision, ionization, drift, and possible reattachment
- 12.15-12.40 2.10.4 H.J. Wörner, J. Bertrand, H. Niikura, P. Corkum and D. Villeneuve (Ottawa, Canada)
Looking at molecular structure and following molecular dynamics using high harmonic generation
- 12.45-14.00 **Lunch**

Seminar 2.11

Chair: S.L. Haan (USA)

- 14.00-14.20 2.11.1 T. C. Pesch and H.-J. Kull (Aachen, Germany)
Nonlinear coupling of ultra-intense electromagnetic and electrostatic waves in relativistic plasmas
- 14.20-14.40 2.11.2 U. Saalmann (Dresden, Germany)
Anomalous ultrafast nanoplasma formation in doped helium droplets
- 14.40-15.00 2.11.3 L. Canova, X. Chen, A. Trisorio, A. Jullien (Palaiseau, France), A. Assion, G. Tempea (Vienna, Austria), N. Forget, T. Oksenhendler (Orsay, France) and R. Lopez-Martens (Palaiseau, France)
Carrier-envelope phase control of using a transmission grating compressor and an AOPDF
- 15.00-15.25 2.11.4 A. Shalit, Y. Paskover, and Y. Prior (Rehovot, Israel)
Single shot, combined time frequency four wave mixing
- 15.25-15.45 2.11.5 D. Persano Adorno and G. Ferrante (Palermo, Italy)
Polarization of the radiation emitted in semiconductors driven by far-infrared fields
- 15.45-16.10 2.11.6 J. Peatross, S. Glasgow, and M. Ware (Provo, UT, USA)
Single-electron light scattering in an intense laser focus
- 16.15-16.45 **Coffee break**

Seminar 2.12

Chair: A.M. Popov (Russia)

- 16.45-17.00 2.12.1 A.S. Kornev, E.B. Tulenko, and B.A. Zon (Voronezh, Russia)
Tunneling photoionization of an atomic d shell
- 17.00-17.15 2.12.2 A. Pérez-Hernández, A. Zair (Salamanca, Spain), D. Hoffmann (London, UK), L.E. Chipperfield, L. Plaja, L. Roso, C. Ruiz (Salamanca, Spain) *Controlling high-order harmonic cut-off extension using two delayed pulses of the same colour*
- 17.15-17.30 2.12.3 M.Yu. Emelin (Nizhny Novgorod, Russia) *High-order harmonic generation by femtosecond laser pulse in long medium*
- 17.30-17.45 2.12.4 I.A. Burenkov, O.V. Tikhonova (Moscow, Russia)
Different regimes of the laser-stimulated bremsstrahlung in intense ultrashort laser pulses
- 17.45-18.00 2.12.5 V.S. Rastunkov and V.P. Krainov (Moscow, Russia)
Theory of high-order harmonic generation due to Brunel electron heating in relativistic laser interaction with overdense plasma
- 18.00-18.15 2.12.6 S.P. Andreev, V.A. Nebogatov, and T.V. Pavlova (Moscow, Russia)
Broadening of cyclotron resonance line due to neutral impurities in two-dimensional semiconductors
- 18.15-18.30 2.12.7 A.Yu. Okulov (Moscow, Russia)
Laser singular theta-pinch
- 18.30-18.45 2.12.8 A.V. Flegel, M.V. Frolov, N. L. Manakov (Voronezh, Russia), Anthony F. Starace (Lincoln, NE, USA)
Laser-induced resonant structure in electron-atom scattering
- 18.45-19.00 2.12.9 Di-Fa Ye and J. Liu (Beijing, P.R. China)
Strong field double ionization: from atoms to molecules

Poster Session, Tuesday, July 1

Chair:

- P2.1. L. Arissian (Ottawa, Canada; College Station, TX, USA), C. Smeenk (College Station, TX, USA), P. Corkum (Ottawa, Canada)
Study of tunnel ionization with circularly polarized light
- P2.1.2 D.I. Bondar (Waterloo, Ottawa, Canada), W.-K. Liu (Waterloo, Canada), and M.Yu. Ivanov (London, UK)
Two-electron ionization in strong laser fields below intensity threshold
- P2.1.3 C.F.M. Faria (London, UK)
Non-sequential double ionization in diatomic molecules: one- and two-center rescattering scenarios
- P2.1.4 A.H. Gevorgyan, K. B. Oganessian, and K.R. Allahverdyan, E.M. Arutyunyan, S.O. Arutyunyan, A.G. Movsisyan (Yerevan Armenia)
The peculiarities of radiation of photonic crystals with defect (isotropic or anisotropic)
- P2.1.5 R. Gopal (Heidelberg, Germany), A. Rudenko*, K. Simeonidis*, K. -U. Kühnel*, M. Kurka*, C.-D. Schröter (Heidelberg, Germany), O. Herrwerth, Th. Uphues, M. Schultze, E. Goulielmakis, M. Uiberacker, (Garching, Germany) D. Bauer (Heidelberg, Germany), M. Lezius (Garching, Germany), R. Moshhammer (Heidelberg, Germany), M. F. Kling (Garching, Germany) and J. Ullrich (Heidelberg, Germany)
Three dimensional momentum imaging of electron wavepacket interferences in few cycle laser pulses