

The fourth MIPT-LPI-UEC Joint Workshop on Atomic, Molecular, Optical Physics

Date: March 25-29, 2017 (Scientific program I and II on March 27 and 28)

Venue: Room 803 (Oral session) and 6th floor (Poster session), Building E-6, The University of Electro-Communications

Language: English

Organizer: Research Organization for Coherent Photon Sciences, UEC

Supporter: Global Alliance Laboratory (MIPT-LPI-UEC GAL)

Scientific program (*tentative*)

2017.3.27 (Mon.) Scientific program I

9:30-9:35 Opening remark

9:35-10:15 Ken-ichi Ueda (UEC), *plenary talk*: “Heat capacitive active mirror (HCAM) - A new concept of thermal-lens-free solid state laser -”

10:15-10:45 Masayuki Katsuragawa (UEC), *TBA*

10:45-11:05 Coffee break

11:05-11:25 Ilya Semerikov (MIPT), “On the way to robust laser cooled magnesium ion microwave frequency standard”

11:25-11:45 Artem Golovzin (MIPT), “Theoretical study of 1.14 μm clock transition uncertainties in Tm”

11:45-12:05 Ilia Zalivako (MIPT), “Interference filter stabilized ECDL for precision spectroscopy of He⁺ ion”

12:05-13:35 Lunch break

13:35-14:50 Poster session (6th floor, Building E-6)

14:50-15:20 Ken'ichi Nakagawa (UEC), “Quantum simulator with cold Rydberg atoms”

15:20-15:40 Haruka Tanji (UEC), *TBA*

15:40-16:05 Coffee break

16:05-16:35 Shinsuke Haze (UEC), “Characterization of charge-exchange collisions between ultracold Li atoms and Ca⁺ ions”

16:35-17:05 Tetsuo Kishimoto (UEC), *TBA*

17:05-17:35 Akifumi Asahara (UEC), “Time-Domain Dual-Comb Spectroscopy for Solid State Physics”

19:00 Workshop reception (Committee meeting)

2017.3.28 (Tue.) Scientific program II

9:30 Session opening

9:35-10:05 Sergey Savinov (LPI), "Physical principles of pulsed cathodoluminescence"

10:05-10:25 Evgeniia Varaksina (MIPT), "Influence of fluorine radicals in organic ligands on photoluminescence properties of Eu(III) β -diketonate compounds"

10:25-11:15 Coffee break

11:15-11:45 Inga Tolstikhina (LPI), "Charge exchange in slow ion-atom collisions. Adiabatic approach"

11:45-12:15 Naruo Sasaki (UEC), *TBA*

12:15-13:45 Lunch break

13:45-15:45 Lab tours

15:45-16:15 Sergey Andreev (MIPT), "Investigation of Al plasmas from thin foils irradiated by high-intensity extreme ultraviolet"

16:15-16:35 Yurina Michine (UEC), "High damage threshold optics of transient grating with ozone mixture gas (tentative)"

16:35-16:55 Konstantin Kislov (MIPT), "Strong-Field Effects of Interaction of Ultrashort Laser Pulses with Metallic Compound Nano antennas"

16:55-17:10 Coffee break

17:10-17:40 Toru Morishita (UEC), "Atomic and molecular dynamics in intense laser fields"

17:40-18:00 David Aznaurov (MIPT), "Quantum focusing of photoelectrons produced by strong circularly polarized laser pulses"

18:00-18:20 Shun Ohgoda (UEC), "Photoionization of hydrogen in a strong static electric field"

18:20-18:40 Pavel Samygin (MIPT), "Multichannel generalization of the adiabatic theory of ionization of atoms by intense low-frequency laser pulses"

18:40 Closing remark

Poster Session on the 6th floor, Building E-6

2017.3.27 (Mon.) 13:35-14:50

List of Poster presentations (*confirmed papers only*)

- C. Zhang, D. Tregubov, K. Yoshii, C. Ohae, M. Suzuki, K. Minoshima, and M. Katsuragawa, “A new optical technology to arbitrarily manipulate amplitudes and phases of a highly discrete broadband spectrum.”
- I. Semerikov, I. Zalivako, A. Borisenko, V. Sorokin, K. Khabarova, and N. Kolachevsky “On the way to robust laser cooled magnesium ion microwave frequency standard.”
- A. Golovizin, E. Kalganova, G. Vishnyakova, D. Tregubov, D. Sukachev, K. Khabarova, V. Sorokin, and N. Kolachevsky, “Theoretical study of 1.14 um clock transition uncertainties in Tm.”
- I. Zalivako and A. Ozawa, “Interference filter stabilized ECDL for precision spectroscopy of He⁺ ion.”
- N. Watanabe, H. Tamura, M. Musha, and K. Nakagawa, Frequency-comb-referenced widely tunable optical frequency synthesizer for precision spectroscopy of Rb Rydberg states.”
- H. Tamura, Y. Yamaguchi, T. Yamakoshi, and K. Nakagawa, “Observation of spatial correlations of Rydberg excitations in two-dimensional single atoms arrays.”
- M. Sasakawa, R. Saito, S. Haze, R. Nakai, M. Raoult, H. Da Silva Jr., O. Dulieu, and T. Mukaiyama, “Characterization of ultracold collisions between laser-cooled ⁶Li atoms and ⁴⁰Ca⁺ ions.”
- M. Uchida, T. Kato, Y. Tanaka and K. Minoshima, “Ultrafast three-dimensional measurements using spectral interferometry of chirped optical frequency comb with a fiber bundle.”
- A. Suemasa, A. Shimo-oku, and M. Musha, “Developments of highly frequency and intensity stabilized lasers for space gravitational wave detector.”
- Y. Saito, K. Matsusaka, M. Musha, “Developments of optical frequency comb for dual-comb spectroscopy and high precision frequency reference.”
- E. A. Varaksina, I. V. Taidakov, and S. A. Ambrozevich, “Influence of fluorine radicals in organic ligands on photoluminescence properties of Eu(III) β-diketonate compounds.”
- T. Anzai and V. Vohra, “Towards the fabrication of color-switchable single-pixel hybrid light-emitting devices.”
- S. Inaba, T. Anzai, and V. Vohra, “Transfer-printing of polymer solar cells with inverted concentration profiles.”
- R. Shikne, and H. Yoneda, “Early time (< 500 fs) dielectric function dynamics in warm dense bisuth.”
- A.D. Kondorskiy, K.S. Kislov, and A.A. Narits, “Strong-Field Effects of Interaction of Ultrashort Laser Pulses with Metallic Compound Nano antennas.”
- H. Matsui, O. I. Tolstikhin, and T. Morishita, “Siegert states of a hydrogen atom in the complex field.”
- D. B. Aznaurov and O. I. Tolstikhin, “Quantum focusing of photoelectrons produced by strong circularly polarized laser pulses.”
- S. Ohgoda, Oleg I. Tolstikhin, and T. Morishita, “Photoionization of hydrogen in a strong static electric field.”
- P. K. Samygin and O. I. Tolstikhin, “Multichannel generalization of the adiabatic theory of ionization of atoms by intense low-frequency laser pulses.”