

Public Lecture

EL 1

Quantum information – why is it fascinating

Paweł Horodecki

Plenary Lectures

PL 1

Hanbury Brown and Twiss and other atom-atom correlations: Advances in quantum atom optics

Alain Aspect

PL 2

Quantitative experiments on electron-molecule collisions

Michael Allan

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Ultracold polar molecules

Silke Ospelkaus

PL 4

Dissociative recombination of small molecular ions: the spectroscopic frontier

Xavier Urbain

PL 5

Photonic entanglement – from fundamentals to applications and back

Anton Zeilinger

PL 6

Attosecond angular streaking and sub-100-attosecond tunneling ionization dynamics

Ursula Keller

PL 7

Chemistry at ultracold temperatures: Observation of the smallest droplet of acid

Martina Havenith-Newen

PL 8

Playing quantum marbles, or how often do atoms interfere with themselves?

Dieter Meschede

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Atomic physics in strong fields: precision experiments with stored and cooled highly charged ions

Thomas Stöhlker

PL 10

Precision spectroscopy of antiprotonic atoms and antihydrogen

Eberhard Widmann

PL 11

Precision parity and time reversal experiments with trapped radioactive isotopes

Klaus Jungmann

Progress Reports

PR 1

Molecules in intense ultrashort laser pulses

Alejandro Saenz

PR 2

Nonlinear resonances and dynamics of atomic Bose-Einstein condensates

Janne Ruostekoski

PR 3

Few-electron dynamics in intense short XUV pulses studied with coincident momentum spectroscopy

Artem Rudenko

PR 4

Rydberg dark states

Charles Adams

PR 5

Interferences in the Autler-Townes effect

Aigars Ekers

PR 6

Chemical applications of laser- and sympathetically cooled ions in ion traps

Stefan Willitsch

PR 7

Towards scaling quantum simulations in an ion trap(array)

Tobias Schätz

PR 8

Realistic quantum-enhanced interferometry

Konrad Banaszek

Contributed Papers

CP 1 – CP 112: Wednesday, July 8

CP 113 – CP 211: Friday, July 10

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Dielectronic recombination of H-like highly charged ions

O.Yu. Andreev, L.N. Labzowsky, A.V. Prigorovsky

CP 2

Progress in the analysis of the odd parity configurations of tantalum atom

B. Arcimowicz, J. Dembczyński

CP 3

Population transfer in four-level atomic or molecular systems with far-optical transitions

H.K. Avetissian, A. Brown, G.F. Mkrtchian

CP 4

Line strength measurements for selected Ne I spectral lines and comparison with strengths of analogous transitions in Ar I

A. Baclawski, J. Musielok

CP 5

Enhancement of radiative recombination of U^{92+} ions with cooling electrons for the lowest $n=1$ and $n=2$ states

D. Banaś, M. Pajek, Th. Stöhlker, H.F. Beyer, F. Bosch, C. Brandau, S. Böhm, S. Chatterjee, M. Czarnota, J.-Cl. Dousse, A. Gumberidze, S. Hagmann, C. Kozhuharov, D. Liesen, P.H. Mokler, A. Müller, A. Kumar, R. Reuschl, E.W. Schmidt, D. Sierpowski, U. Spillmann, S. Surzhykov, J. Szlachetko, S. Tashenov, S. Trotsenko, P. Verma, A. Warczak

CP 6

Experimental Stark broadening studies of the O I multiplet $3p P-3d D^o$ at 9264 Å

A. Bartecka, A. Baclawski and J. Musielok

CP 7

Ne I excitation rate coefficients for C-R models applied to electric propulsion

Ch. Berenguer, K. Katsonis, R.E.H. Clark

CP 8

Complete Active Space multiconfiguration Dirac-Hartree-Fock calculations of hyperfine structure constants

J. Bieroń, Ch. Froese Fischer, P. Indelicato, P. Jönsson, P. Pyykkö

CP 9

Is two-photon resonance optimal for STIRAP?

I.I. Boradjiev, A.A. Rangelov, N.V. Vitanov

CP 10

IR luminescence of Xe_2 excimers produced in dense Xe gas by electron impact

A.F. Borghesani, G. Carugno

CP 11

The density function for atoms in second quantization, addressing the symmetry

A. Borgoo, O. Scharf, G. Gaigalas, M.R. Godefroid

CP 12

Extremely sensitive coherent control of atomic processes

F.A. Hashmi, M. Abdel-Aty, M.A. Bouchene

CP 13

Hyperfine structure of near-infrared transitions in neutral nitrogen revisited

T. Carette, M. Nemouchi, M.R. Godefroid, P. Jönsson

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A theoretical study of the isotope shift on electron affinity of chlorine
T. Carette, M.R. Godefroid
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Nonresonant corrections for the optical resonance frequency measurements in hydrogen atom
L. Labzowsky, G. Schedrin, D. Solovyev, E. Chernovskaya, G. Plunien,
S. Karshenboim
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Interatomic Coulombic decay of the $\text{Ne}^{2+}(2s^1 2p^5)\text{Ar}$ states populated via the K-LL Auger decay of Ne
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P. Kolorenč, L.S. Cederbaum
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New view on the description of the hyperfine structure of free atoms and ions. Case of the model space (5d + 6s) of lanthanum atom
J. Dembczyński, M. Elantkowska, J. Ruczkowski
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Search for the frequencies for the nuclear optical clock with the use of information from the analysis of the fine structure of high lying energy levels in Th^+ ion
J. Dembczyński, J. Ruczkowski, M. Elantkowska
- CP 19
Recoil by Auger electrons: theory and application
Ph.V. Demekhin, L.S. Cederbaum
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N. Darmenov, P. Popov
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Level shift and electron-impact excitation of H-like ions in dense plasma
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Yu. Doronin, O. Danylchenko, S. Kovalenko, M. Libin, V. Samovarov, V. Vakula
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V. Pogorelov, I. Doroshenko, V. Sablinskas, V. Balevicius
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J. Kocisek, O. Struzinsky, H. Sahankova, F. Krcma, S. Matejcik

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Angular distribution of fluorescence from sub-valence shell ionized alkaline atoms by electron impact
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Investigation of the hyperfine structure of Scandium atom
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Radiative correlated double electron capture (RDEC) in $O^{8+}+C$ collisions at low energy

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Effective field theory for light transport in disorder atomic medium

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