INVITED SPEAKERS

Monday, 4 August 2014 8:30 am – 8:45 am

Welcome Remarks

Monday, 4 August 2014 8:45 am – 10:15 am

Nobel Prize Session

Chair: W. Phillips

D. Wineland "Quantum control of trapped ions at NIST" (45) p.32

S. Haroche "Quantum control of trapped photons with Rydberg atoms" (45) p.32

Monday, 4 August 2014 10:45 am – 12:30 pm

Quantum Gases I

Chair: F. Chevy

T. Esslinger "Bands with a twist and quantum sized steps" (45) p.33

R. Grimm "Efimov and beyond: New developments in few-body physics with ultracold bosons and fermions" (30) p.33

Z. Hadzibabic "Uniform Bose gases" (30) p.34

Monday, 4 August 2014 2:15 pm – 4:00 pm

Artificial Atoms

Chair: D. Meschede

J. Wrachtrup "Quantum Spin Sensors" (45) p.34

E. Waks "Coherent control of light-matter interactions in a semiconductor nanophotonic device" (30) p.35

M. Hafezi "Photons in synthetic gauge fields" (30) p.35

INVITED SPEAKERS

Tuesday, 5 August 2014 8:30 am – 10:15 am

Molecules

Chair: W. Bakr

P. Julienne "Universality in Cold Molecular Collisions" (45) p.36

B. Gadway "Studying the dynamics of a long-range interacting spin system of ultracold polar molecules" (30) p.37

M. Zeppenfeld "Generating cold ensembles of polyatomic molecules" (30) p.37

Tuesday, 5 August 2014 10:45 am – 12:30 pm

Quantum Gases II

Chair: M. Lewenstein

C. Chin "Roton-Maxon Excitation of Bose Condensates in a shaken optical lattice" (45) p.38

Y. Takahashi "Quantum simulation using ultracold ytterbium atoms" (30) p.38

S. Chen "Generation and Exploration of Spin-Orbit coupled Bose Gas" (30) p.39

Tuesday, 5 August 2014 2:15 pm – 4:00 pm

Fundamental Atomic Tests

Chair: A. Derevianko

D. DeMille "ACME: A Search for the Electron's Electric Dipole Moment" (45) p.40

K. Blaum "Fundamental tests of nature and a high-precision measurement of the atomic mass of the electron" (30) p.41

M. Kasevich "Precision Inertial Sensing Using Atom Interferometry" (30) p.41

INVITED SPEAKERS

Wednesday, 6 August 2014 8:30 am – 10:15 am

Ultrafast Science

Chair: J. Ahn

U. Keller "Attosecond ionization dynamics" (45) p.42

N. Dudovich "Resolving and manipulating attosecond processes via strong-field light-matter interactions" (30) p.43

C. Geddes "Laser plasma accelerators and photon sources" (30) p.43

Wednesday, 6 August 2014 10:45 am – 12:30 pm

Rydberg Atoms

Chair: A. Gorshkov

T. Pohl "Many-body physics with Rydberg atoms and quantum light" (45) p.44

S. Hofferberth "Rydberg quantum optics in dense ultracold gases" (30) p.44

A. Browaeys "Experimental investigations of resonant dipole-dipole interaction between cold atoms" (30) p.45

INVITED SPEAKERS

Thursday, 7 August 2014 8:30 am – 10:15 am

Quantum Calculation

Chair: I. Novikova

J. Taylor “Quantum sensing and simulation with light and matter” (45) p.46

A. Aspuru-Guzik "Quantum Information and Quantum Computation for Chemistry" (30) p. 46

A. White "Photonic Quantum Simulation" (30) p.47

Thursday, 7 August 2014 10:45 am – 12:30 pm

Precision Measurements

Chair: M. Safronova

K. Eikema "Ramsey-comb spectroscopy: high power and accuracy combined" (45) p.48

A. Ludlow "Ultra-precise atomic timekeeping with the optical lattice clock" (30) p.48

E. Peik "Optical clocks based on strongly forbidden electronic and nuclear transitions in trapped ions" (30) p.49

Thursday, 7 August 2014 2:15 pm – 4:20 pm

Hot Topics I

Chair: I. Spielman

U. Schneider "An Aharonov-Bohm interferometer for determining Bloch band topology" (25) p.50

L. Fallani "SU(N) fermions: multicolor physics and orbital magnetism" (25) p.51

F. Ferlaino "Dipolar physics with ultracold atomic magnets" (25) p.52

P. Cappellaro "Quantum control strategies for imaging and spectroscopy" (25) p.52

J. Doyle "Detecting the Chirality of Molecules using Buffer-gas Cooling and Phase Sensitive Three-wave Mixing" (25) p.53

INVITED SPEAKERS

Friday, 8 August 2014 8:30 am – 10:15 am

Bose Gases

Chair: M. Inguscio

J. Dalibard "The uniform 2D Bose gas, in and out of equilibrium" (45) p.54

Y. Shin "Geometric Hall Effect in a Spinor Bose-Einstein Condensate" (30) p.55

S. Stringari "Superstripes in spin orbit coupled Bose-Einstein condensed gases" (30) p.55

Friday, 8 August 2014 10:45 am – 12:30 pm

Quantum Simulation/Ions/Molecules

Chair: B. Odom

P. Zoller "Quantum Simulation of Dynamical Gauge Fields with Cold Atoms" (45) p.56

E. Hudson "Sympathetic cooling of molecules with laser-cooled atoms" (30) p.57

M. Köhl "Direct photonic coupling of a semiconductor quantum dot and a trapped ion" (30) p.57

Friday, 8 August 2014 2:00 pm – 3:45 pm

Hybrid Quantum Systems

Chair: P. Treutlein

A. Rauschenbeutel "Breaking the mirror symmetry of spontaneous emission via spin-orbit interaction of light" (45) p.58

C. Regal "Two-atom quantum interference in tunnel-coupled optical tweezers" (30) p.58

O. Painter "Phonon counting experiments in cavity-optomechanics" (30) p.59

INVITED SPEAKERS

Friday, 8 August 2014 4:00 pm – 6:05 pm

Hot Topics II

Chair: S. Gupta

J. Reichel "Creating entanglement in an ensemble of 40 atoms using quantum feedback and quantum Zeno dynamics in a fiber cavity" (25) p.59

M. Oberthaler "Detection of entanglement of non-gaussian atomic states and upscaling of atomic squeezing to large atom numbers" (25) p.60

P. Richerme "Simulating quantum many-body dynamics with trapped atomic ions" (25) p.61

D. Hall "Dirac Monopoles in a Synthetic Magnetic Field" (25) p.61

V. Vuletic "Very Attractive Photons" (25) p.62

Monday Poster Session

Bose Gases

Mon-001 The *p*-orbital Bose-Einstein condensation of two-species mixture in a bipartite square optical lattice - *Liu*

Mon-002 Dynamics of ultracold atoms in amplitude-modulated parabolic lattices - *Yamakoshi*

Mon-003 Novel quantum phenomena of atomic quantum gas in a shaken optical lattice - *Ha*

Mon-004 Direct observation of chiral order in double layer superfluid - *Ewerbeck*

Mon-005 Effective preparation of atomic condensates in excited bands of an optical lattice by standing-wave pulses - *Zhou*

Mon-006 Tunneling-Induced Restoration of the Degeneracy and the Time-Reversal Symmetry Breaking in Optical Lattices - *Sowinski*

Mon-007 Using Tilted, Modulated Lattices to Implement Novel Hamiltonians - *Burton*

Mon-008 Bosons in optical lattices: beyond the Bose-Hubbard Hamiltonian - *Carbonell-Coronado*

Mon-009 Ultracold Atoms in a Tunable Optical Kagome Lattice - *Barter*

Mon-010 Bose-Einstein condensation of ultra-cold atoms in a frustrated, triangular optical lattice - *Mathey*

Mon-011 Magnetometric Probe of an Ultra-cold Spinor Gas - *Higbie*

Mon-012 Quantum dynamics of spin waves using ultracold atoms - *Fukuhara*

Mon-013 Quantum control of a many-body system in a spin-1 Bose-Einstein condensate - *Hoang*

Mon-014 Investigation of Kibble-Zurek quench dynamics in a spin-1 ferromagnetic BEC - *Anquez*

Mon-015 Metastable Spin Texture of Spin-1 Bose-Einstein Condensates in a Ring Trap - *Kunimi*

Mon-016 Dipolar ultracold atoms in a double well trap - *Vernac*

Mon-017 Quantum phases in an asymmetric double-well optical lattice - *Paul*

Mon-018 Experiments with BECs in a Painted Potential: Atom SQUID, Matter Wave Bessel Beams, and Matter Wave Circuits - *Boshier*

Mon-019 Observation of Solitonic Vortices in Bose-Einstein Condensates - *Donadello*

Mon-020 Ring Dark Solitons in Toroidal Bose-Einstein Condensates - *Toikka*

Mon-021 One dimensional atomic rings with barriers: a Luttinger liquid approach to precision measurement - *Ragole*

Mon-022 Finite-Temperature Effects in ring-shaped Bose-Einstein condensates - *Edwards*

Mon-023 Investigation of Critical correlations in an ultracold Bose gas by means of a temporal Talbot-Lau interferometery - *Chen*

Mon-024 Collective modes of a two-dimensional quantum gas - *Merloti*

Mon-025 Measurement-based control of many-body systems - *Heck*

Mon-026 A novel experiment for coupling a Bose-Einstein condensate with two crossed cavity modes - *Leonard*

Mon-027 Heat Capacity of a Bose-Einstein condensate measured through Global variables - *Telles*

Mon-028 Probing the excitation spectrum of a ring-shaped Bose-Einstein Condensate - *Wang*

Mon-029 Dynamics of coupled mixtures in optical lattices - *Reeves*

Mon-030 Superfluid Atomtronic Circuits - *Eckel*

Mon-031 Emergence of coherence in a 2D uniform Bose gas - *Chomaz*

Few Body Interactions and Collisions

Mon-032 Three-body recombination of helium atoms from ultracold to thermal energies: classical trajectory vs. quantal calculations - *Pérez-Ríos*

Mon-033 Field dependent studies of inelastic scattering properties in an ultracold mixture of lithium and metastable ytterbium - *Roy*

Mon-034 Measurements of Na - Na^+ total collision rate - *Goodman*

Mon-035 Dynamics of gas phase Ne*-ND_3 Penning ionization at low temperatures - *Jachymski*

Mon-036 Few-body interactions in an ultacold Bose-Fermi mixture - *Jiang*

Mon-037 Collisional Properties of Ultracold Radium Isotopes - *Dammalapati*

Cooling and Trapping of Atoms and Ions

Mon-038 Very low power two-photon absorption in cold ^{87}Rb atoms using an optical nanofiber - *Gokhroo*

Mon-039 A nanostructured tapered optical fiber for cold atom trapping - *Nic Chormaic*

Mon-040 Laser cooling with three-level cascade transitions: calculations for group I and II atoms and prospects for tests with calcium - *Cruz*

Mon-041 Atomic Interactions with a Bichromatic Field: Stimulated Emission and Laser Cooling - *Singh*

Mon-042 Dynamics of Polychromatic Optical Forces for Deceleration of Atoms and Molecules - *Galica*

Mon-043 Laser Cooling without Spontaneous Emission - *Corder*

Mon-044 Localized Interactions between Laser-cooled Atoms and Optical Near-field - *Ichinoseki*

Mon-045 Surface Science with Trapped Ions - *Noel*

Ultracold Mixtures and Molecules

Mon-046 Towards a MOT of CaF - *Hemmerling*

Mon-047 Magnetic Slowing, Optical Loading and Magnetic Trapping of CaF and K - *Kozyryev**

Mon-048 Laser cooling and slowing of CaF molecules - *Hambach*

Mon-049 MM-Wave Spectroscopy and Determination of the Radiative Branching Ratios of ^{11}Bh for Laser Cooling Experiments - *Truppe*

Mon-050 Magneto-Optical Trapping of a Diatomic Molecule - *Norrgard*

Mon-051 Towards ultracold LiK ground-state molecules - *Debatin*

Mon-052 Dual Component ^{87}Rb and ^{41}K Bose-Einstein condensates in configurable optical potentials - *Neely*

Mon-052 Mixtures of Bose-Fermi superfluids - *Chevy*

Mon-054 Designing an ultracold Yb-Li mixture with controllable interactions - *Schaefer*

Mon-055 High-Resolution Spectroscopy of Trilobite-Like States of $^{85}Rb_2$ - *Carollo*

Mon-056 The creation of ultracold RbCs molecules in the rovibrational ground state - *Cornish*

Mon-057 Thermalization and progress to degeneracy in a mixture of rubidium-87 and ytterbium - *Vaidya*

Intense Fields and Ultrafast Phenomena

Mon-058 Electron Dynamics and Terahertz Emission in Two-Color Photoionization - *You*

Mon-059 Electron-Rescattering from Ar and Xe induced by Intense Laser Filed: Above Threshold Ionization and Rydberg Excitation - *Ding*

Mon-060 Benchmark H_2 few-cycle photoionisation measurements and laser intensity calibration with percent-level accuracy - *Sang*

Mon-061 Ionisation of metastable states of neon using few-cycle light fields - *Calvert*

Mon-062 Characterisation of intense few-cycle laser pulses from photo-ionisation of atomic hydrogen - *Wells*

Mon-063 Strong-field ionization of helium by elliptically polarized light in attoclock configuration - *Ivanov*

Mon-064 Improving conversion efficiency of high harmonic generation with gas mixtures - *Sayraç*

Mon-065 Signatures of field-induced intramolecular quantum interference in high-order harmonic generation by laser-irradiated homonuclear diatomic(s) - *Usachenko*

Quantum Optics and Cavity QED

Mon-066 Coherent population trapping (CPT) coupled by magnetic dipole interactions - *Han*

Mon-067 High Conversion Efficiency in the Resonant Four-Wave Mixing Process - *Lee*

Mon-068 Dynamics of strongly interacting photons in waveguides: a generalized input-output formalism - *Caneva*

Mon-069 Coherent population trapping in a two field cavity-QED system: Semiclassical Theory - *Zou*

Mon-070 Coherent coupling of hybrid alkali vapor through spin-exchange collisions - *Katz*

Mon-071 Observation of Paired Superradiance - *Uetake*

Mon-072 Cavity QED in the Recoil Resolved Regime - *Klinder*

Mon-073 Nonequilibrium phase transitions in periodically-driven cavity QED systems - *Mori*

Mon-074 Strong atom-light interactions in 1D photonic crystals - *Goban*

Mon-075 Crossover from Lasing to Photon Bose-Einstein condensation by Photon Gas Thermalization - *Schmitt*

Mon-076 Fiber cavity-based photon-ion interfaces - *Maiwald*

Mon-077 Building a hybrid quantum system of neutral atoms coupled to a superconducting circuit - *Grover*

Mon-078 Atom induced cavities and tunable long-range interactions between atoms trapped near photonic crystals - *Douglas*

Mon-079 2-D spectrum of an optical microcavity coupled to a few atoms - *Lien*

Mon-080 Graphene plasmons quality factors - *Jablan*

Mon-081 Single-photon second-order nonlinear processes in graphene - *Manzoni*

Mon-082 Room temperature coherent population trapping with nuclear spins in diamond - *Jamonneau*

Mon-083 Coherent spin control of a nanocavity-enhanced qubit in diamond - *Chen*

Mon-084 Size-dependence of radiation power thermally emitted from a microparticle - *Tachikawa*

Mon-085 Experimental Realization of Environment Assisted Speed Up of the Quantum State Evolution in the Open Quantum System - *Yan*

Mon-086 Modal decomposition and control of higher-order modes in silica nanofibers - *Fatemi*

Quantum Information

Mon-087 Entanglement Generation in a Multi-Qubit System Coupled to Heat Bath - *Pegahan*

Mon-088 Quantum storage based on the control field angular scanning - *Zhang*

Mon-089 Time-Continuous Bell Measurements - *Vasilyev*

Mon-090 A Monte Carlo wavefunction method for semiclassical simulations of spin-position entanglement - *Billington*

Mon-091 Individual Addressing of Trapped Ions with MEMS-based Beam Steering - *Crain*

Mon-092 Quasiparticle engineering and entanglement propagation in a quantum many-body system - *Hempel*

Mon-093 Femtosecond Ramsey interferometry for atomic qubit state measurement - *Lee*

Quantum Simulation

Mon-094 Quantum Simulation of Unphysical operation with a Trapped Ion - *Zhang*

Mon-095 Propagation of information in long-range interacting quantum lattice system. - *Gong*

Mon-096 Single phonon addition to thermal mechanical motion of trapped ion - *Slodička*

Mon-097 Quantum Computing with Ba and Yb Ion Chain - *Zhou*

Mon-098 Ultrafast entanglement of trapped ions - *Neyenhuis*

Rydberg Atoms

Mon-099 Population transfer collisions involving nD Rydberg atoms in a CO_2 optical dipole trap - *Kondo*

Mon-100 Aggregation of Rydberg excitations in a dense thermal vapor cell - *Urvoy*

Mon-101 Design and simulation of a cold Rydberg atom production and detection system. - *Mojica-Casique*

Mon-102 3-body resonant interaction in cold Cs Rydberg atoms - *Faoro*

Mon-103 Quantum simulations of biochemical processes with Rydberg atoms - *Wüster*

Spectroscopy, Atomic and Molecular Structure

Mon-104 Molecular alignment measured with photoelectron ionization yields - *Kaya*

Mon-105 Investigating (*R*)-3-methylcyclopentanone Conformers using Temperature Dependent Raman Spectroscopy - *Al-Basheer*

Mon-106 Time-sliced 3D momentum imaging of photofragmentation H_2^+ - *Kaya*

Mon-107 A new method to measure photoexcitation cross-sections with a Gaussian laser beam questions the photodetachment cross-section of H^- - *Vandevraye*

Mon-108 Weakly bound $^{87}Rb_2(5s_{1/2}+ 5p_{1/2})1_g$ molecule: Hyperfine interaction and improved LeRoy-Bernstein analysis including nonlinear terms - *Jelassi*

Mon-109 Observation of the $X^1\Sigma^+$ and $C^1\Sigma^+$ States of NaD Molecules - *Whang*

Mon-110 Resonance transition in atoms passing through a magnetic grating - *Hatakeyama*

Mon-111 Lifetime of a Spin State in an Isolated Rydberg Ion - *Tan*

Mon-112 Non-Resonant Correlation Spectroscopy in Cold Atoms: Extracting the Correlation Information of Light Sidebands - *Kumar*

Mon-113 Driving Rydberg-Rydberg transitions with an amplitude-modulated optical lattice - *Moore*

Mon-114 Towards multi-photon Raman scattering with higher excited levels of rubidium atoms in a warm ensemble - *Parniak*

Mon-115 Probe-intensity dependence of velocity-selective polarization spectroscopy at the rubidium D_2 manifold - *Ramírez-Martínez*

Mon-116 Methods for Characterizing the Dispersion of Passive Optical Cavities using a Femtosecond Optical Frequency Comb - *Kyriacou*

Mon-117 Coherent interactions between matter and radiation in neutral hydrogen clouds in the interstellar medium - *Rajabi*

Precision Measurements and Fundamental Tests

Mon-118 Sensitivity improvements to the YbF electron electric dipole moment experiment - *Devlin*

Mon-119 Improved Limit on the Electric Dipole Moment of the Electron - *Baron*

Mon-120 Measuring the Electron Electric Dipole Moment with Trapped Molecular Ions - *Grau*

Mon-121 Mercury Monohalides as Candidate Molecules for Electron Electric Dipole Moment Searches - *Prasannaa V*

Mon-122 Precision Experiments with Multiply-ionized Atoms in Compact Ion Traps - *Hoogerheide*

Mon-123 Precision spectroscopy of atomic hydrogen for a new determination of the Rydberg constant and the proton charge radius - *Beyer*

Mon-124 Progress on a separated-oscillatory-field microwave measurement of the n=2 Lamb shift of atomic hydrogen - *Vutha*

Mon-125 Unshielded Radio-Frequency Magnetometer - *Keder*

Mon-126 Experimental Test of Quantum Jarzynski Equality with a Trapped Ion - *An*

Mon-127 Free Spin Precession as a Tool for Testing Fundamental Physics - *Fan*

New Experimental and Theoretical Techniques

Mon-128 High-Performance Parallel Solver for 3D Time-Dependent Schrodinger Equation for Large-Scale Nanosystems - *Gaynullin*

Mon-129 Time of Flight Mass Spectrometer for Molecular Ion Trapping - *Petricka*

Mon-130 Coherent Stern–Gerlach momentum splitting on an atom chip - *Margalit*

Mon-131 Phase space tomography using an atom chip with random and engineered fragmentation potentials - *Zhou*

Mon-132 Injection locking of a high power ultraviolet laser diode for laser cooling of ytterbium atoms - *Hosoya*

Mon-133 A deterministic laser-cooled source of single Si ions for solid state qubits - *Ronald*

Mon-134 Room-Temperature Microwave Saturation Spectroscopy of Nitrogen-Vacancy Ensembles in Diamond - *Kehayias*

Mon-135 Diamond Magnetometry of Superconducting Thin Films - *Waxman*

Mon-136 A single frequency tunable laser near 1000 nm for spectroscopic applications - *Huang*

Atomic Clocks

Mon-137 Hyperfine structure in $^{229}{}_{g}Th^{3+}$ as a probe of the $^{229}{}_{g}Th \rightarrow {}^{229}{}_{m}Th$ nuclear excitation energy - *Beloy*

Mon-138 A search for ultra-low energy nuclear isomer state of Thorium-229 -- New method using synchrotron radiation X-ray source-- - *Yoshimura*

Mon-139 Towards a measurement of the nuclear isomer transition in Thorium-229 - *Stellmer*

Mon-140 Search for optical excitation of the low-energy nuclear isomer of Th-229 - *Peik*

Mon-141 ^{229}Th and ^{232}Th Optical Spectroscopy System for Nuclear Frequency Standard - *Krasavin*

Mon-142 Improving atomic clocks using coherence preserving measurements - *Bertoldi*

Mon-143 Development of an ultra-stable universal synthesiser for state-of-the-art frequency metrology - *Johnson*

Mon-144 Towards Optical Clocks and Coherent Frequency Transfer in Sweden - *Zelan*

Mon-145 TACC - Trapped Atom Clock on a Chip - *Deutsch*

Mon-146 Compact Frequency Standard with Cold Atoms: Transportable System - *Müller*

Mon-147 Decoherence time of Ramsey fringes observed in a cesium atomic fountain clock - *Nakamura*

Tuesday Poster Session

Fermi Gases

Tue-001 Half metallic antiferromagnetic ordering of cold fermions induced by resonant tunneling - *Noda*

Tue-002 New Quantum Simulation with Multi-component Fermi Gases - *Pagano*

Tue-003 Ultracold Dysprosium gases: towards a topological superfluid - *Dreon*

Tue-004 Breakdown of Landau's Fermi liquid theory in a Strongly Interacting Fermi Gas - *Drake*

Tue-005 Diffusion of spin in a unitary Fermi gas - *Smale*

Tue-006 Exploring the phase diagram of a strongly interacting 2D Fermi gas - *Zürn*

Tue-007 Experimental studies of an interacting 2D Fermi Gas - *Peppler*

Tue-008 Production of a degenerate fermi gas of chromium - *Vernac*

Bose Gases

Tue-009 ZNG – Theory for Dipolar Quantum Gases - *Veljić*

Tue-010 Dynamics of spinor condensates in a microwave dressing field - *Zhao*

Tue-011 Non-Equilibrium Dynamics of Component Separation in a Binary Bose Gas - *Proukakis*

Tue-012 Nonlinear interferometric scaling from spin-mixing density oscillations - *Mahmud*

Tue-013 Kinetic Model of a Finite Temperature Multi-Component Condensate - *Edmonds*

Tue-014 Mapping the phase diagram of spinor condensates via adiabatic quantum phase transitions - *Jiang*

Tue-015 Fast thermalization and Helmholtz oscillations of an ultracold Bose gas - *Papoular*

Tue-016 BEC dynamics with solitons and vortices - *de Freitas Smaira*

Tue-017 Production of Two Species Superfluid to Study Quantum Turbulence and Vortices. - *Farias*

Tue-018 Coherent matter wave propagation with BECs in toroidal guiding potentials for atom interferometry and ATOMTROMICS based quantum simulators - *Birkl*

Tue-019 Towards producing atomic circulations in a toroidal trap in a Rb87 Bose-Einstein condensate - *Chen*

Tue-020 A continuous atom laser extracted from sodium condensates using two-photon Raman transition - *Murakami*

Tue-021 Observation of a reduced damping rate of collective oscillations of a quasi-1D Bose-Einstein condensate - *Yuen*

Tue-022 Spin dynamics in a two dimensional quantum gas - *Pedersen*

Tue-023 Vortex Pair Annihilation in Two-Dimensional Superfluid Turbulence - *Kwon*

Tue-024 Bethe ansatz approach to prethermalization in a coherently split 1D Bose gas - *Kaminishi*

Tue-025 Enhanced scattering in a Bose-Einstein condensate and a measurement of the heat capacity. - *Bons*

Tue-026 Atom chip based ultracold potassium for testing microwave and RF potentials - *Ziltz*

Tue-027 Experimental Investigation Of Quantum Turbulence in a Trapped Superfluid - *Tavares*

Tue-028 Thermodynamics With Global Variables For a Trapped Bose Gas - *Bagnato*

Tue-029 Bose-Einstein Condensation of ^{86}Sr - *Reschovsky*

Quantum Simulation

Tue-030 Non-equilibrium wave-packet dynamics in 1D optical lattices - *Tacla*

Tue-031 A Dissipative Quantum Many-Body System with Long-Range Interactions - *Mottl*

Tue-032 Dissipative Transport in a Many Body Quantum System - *Santra*

Tue-033 Ballistic Atom Pumps - *Byrd*

Tue-034 The effects of phase noise on the delta-kicked rotor - *Hoogerland*

Tue-035 Dynamics of atoms in bilayer optical lattices, and adiabatic state preparation - *Langer*

Tue-036 Observation of a disordered bosonic insulator from weak to strong interactions - *D'Errico*

Tue-037 Particle-hole entanglement of ultracold atoms in an optical lattice - *Ng*

Tue-038 Quantized Scattering from an Oscillating Barrier for Atomic Quantum Pumps - *Pyle*

Tue-039 A Dynamic, Ultra-Slow Optical-Matter Wave Analog of Event Horizon - *Zhu*

Tue-040 Breaking of time-reversal symmetry during coherent transport in disordered media - *Müller*

Tue-041 Superexchange Mediated Dynamics of Anti-Feromagnetic Order in an 2D Optical Lattice - *Koller*

Tue-042 Optimally Shaped Gates for Trapped Ion Chains - *Choi*

Tue-043 Quench dynamics in ion chains with variable-range interactions - *Buyskikh*

Tue-044 Quantum Simulation and Many-Body Physics with 2D Ion Crystals in a Penning Trap - *Bohnet*

Tue-045 Tunable spin-spin interactions and entanglement of ions in separate wells - *Wilson*

Tue-046 Experimental Developments towards studying Quantum Dynamics in Trapped Ions - *De Munshi*

Tue-047 Implementing scaleable remote ion-photon entanglement - *Graham*

Tue-048 Preparation of High NOON State of Phonon in a Trapped-ion System - *Zhang*

Ultracold Mixtures and Molecules

Tue-049 A microwave trap for sympathetic cooling of polar molecules - *Dunseith*

Tue-050 Towards a Three Dimensional Magneto-Optical Trap for Diatomic Molecules - *Hummon*

Tue-051 A cryogenic buffer-gas BaH beam for molecular laser cooling and ultracold fragmentation - *Tarallo*

Tue-052 Photoassociation spectroscopy of RbYb in a conservative trap - *Goerlitz*

Tue-053 Continuous formation of rovibronic ground state RbCs molecules via photoassociation - *Shimasaki*

Cooling and Trapping of Atoms and Ions

Tue-054 Probing evanescent field coupling between laser-cooled ^{87}Rb atoms and the fundamental and higher order modes of an optical nanofiber. - *Gokhroo*

Tue-055 A two-frequency ion trap confining ions with different charge-to-mass ratios - *Trypogeorgos*

Tue-056 Ion trap surface cleaning and microwave-driven gates - *Allcock*

Tue-057 Development of Microfabricated 2-D Ion Trap for Quantum Information Processing - *Kim*

Tue-058 Grating chips for quantum technologies - *Riis*

Tue-059 Double-Loop Microtrap Array for Ultracold Atoms - *Jian*

Tue-060 Sub-micron magnetic lattices for Quantum Simulation - *La Rooij*

Tue-061 Highly Efficient Free-Space Atom-Light Interface - *Fischer*

Tue-062 Hybrid trap for atoms, ions and molecules built within a Fabry-Perot cavity - *Ray*

Tue-063 Spontaneous coherence of magnons in spin-polarized atomic hydrogen gas - *Vainio*

Tue-064 Modular Quantum Systems with Photons and Phonons - *Vittorini*

Tue-065 Controlled photon emission of two ions in a cavity as enhanced quantum interface - *Casabone*

Intense Fields and Ultrafast Phenomena

Tue-066 Transverse electron momentum distribution for arbitrary polarization state of the ionizing laser pulse - *Ivanov*

Tue-067 Two-dimensional absorption spectroscopy with attosecond XUV light: Unraveling bound-state electron dynamics in strong laser fields. - *Blaettermann*

Tue-068 Low-energy enhanced multiphoton above-threshold ionization in a strong laser field of mid-infrared wavelength - *Usachenko*

Tue-069 Pressure optimization of high harmonic generation with argon gas jet - *Sayraç*

Tue-070 Effect of different transverse modes of femtosecond pulses on filament propagation - *Kaya*

Tue-071 Reduced-Density-Matrix Description for Pump-Probe Optical Phenomena in Moving Many-Electron Atomic Systems - *Jacobs*

Tue-072 Effect of nuclear mass on carrier-envelope-phase controlled electron localization in dissociating molecules - *Sang*

Quantum Information

Tue-073 Quantum Secret Sharing Using Multi-Spatial-Mode Entangled Light - *Horrom*

Tue-074 Adiabatic state transformation in the presence of classical noise. - *Xu*

Tue-075 All optical quantum storage based on spatial chirp of the control field - *Zhang*

Tue-076 Rydberg Quantum Information using a Magnetic Film Atom Chip - *Torralbo-Campo*

Tue-077 Nanophotonic and CMOS-integrated architectures for trapped ion quantum information processing - *Mehta*

Tue-078 Experimental test of state-independent quantum contextuality of an indivisible quantum system - *Huang*

Tue-079 Transfer and qubit fidelity of single atoms in a ring lattice - *Zhan*

Quantum Optics and Cavity QED

Tue-080 Scalable Source of Multipartite Continuous Variable Entangled Beams of Light - *Marino*

Tue-081 Photon-added nonlinear coherent states for a one mode field in a Kerr medium - *Récamier*

Tue-082 Advanced single photon sources with fiber-based optical microcavities - *Hunger*

Tue-083 Quantum optics with hot Rydberg atoms - *Urvoy*

Tue-084 Cross-Modulation of Two Laser Beams at the Individual Photon Level - *Beck*

Tue-085 Single Photon Transistor in Circuit Quantum Electrodynamics - *Neumeier*

Tue-086 Characterization of Non-Classical Photonics States Retrieved from a Cold Atomic Memory and Quantum Statistics of Light Transmitted through Intracavity Rydberg medium. - *Boddeda*

Tue-087 Reversing the temporal envelope of an heralded single photon using a cavity - *Srivathsan*

Tue-088 Phase-dependent double-Λ electromagnetically induced transparency - *Chen*

Tue-089 Observation of Spinor Slow Light - *Lee*

Tue-090 Three-photon electromagnetically induced absorption in a ladder-type atomic system - *Moon*

Tue-091 Line Properties of the Ladder-type Electromagnetically Induced Transparency - *Tsai*

Tue-092 Investigation of dynamical features in Λ-EIT atomic systems through noise correlation spectroscopy - *Theophilo*

Tue-093 Electromagnetically induced photonic bandgap in cold ^{87}Rb atoms - *Kim*

Tue-094 Synchronization in Superradiant Lasers - *Cox*

Rydberg Atoms

Tue-095 Imaging the Rydberg Electron Wavefunction - *Cubel Liebisch*

Tue-096 Dipolar transport in ultracold Rydberg gases - *Günter*

Tue-097 Spin squeezing and supersolids using Rydberg-dressed strontium atoms - *Sadler*

Tue-098 Ultralong Range Rydberg Molecules of Strontium - *DeSalvo*

Tue-099 Ultrafast coherent control of an ultracold Rydberg gas - *Takei*

Tue-100 Dynamical crystallization in a low-dimensional Rydberg gas - *Hild*

Tue-101 Rydberg blockade in an optical lattice - *Goldschmidt*

Spectroscopy, Atomic and Molecular Structure

Tue-102 Tune-out wavelengths for metastable helium - *Baldwin*

Tue-103 Magic polarization to eliminate Stark-induced dephasing in an optical trap - *Kim*

Tue-104 Magic Frequencies in Atom-Light Interaction for Precision Probing of the Density Matrix - *Margalit*

Tue-105 Tailoring light to enhance forbidden atomic transitions rates - *Jauregui*

Tue-106 Time-resolved measurement of velocity-changing collisions in a paraffin-coated alkali vapor cell - *Sekiguchi*

Tue-107 Atom-surface interactions using a quadrupole oscillator strength sum rule - *Babb*

Tue-108 Adsorbate Electric Fields on a Cryogenic Atom Chip - *Hufnagel*

Tue-109 Relaxation of Cs atomic polarization at surface coatings characterized by x-ray photoelectron spectroscopy - *Kushida*

Tue-110 Raman spectroscopy and NMR investigation of hydrocarbon anti-relaxation coatings upon interaction with an alkali-metal vapor - *Tretiak*

Tue-111 Nonlinear spectroscopy of atoms inside a porous sample - *Villalba*

Tue-112 Cell influence on the absolute frequency of cesium atom 6S-8S hyperfine transition - *Wu*

Tue-113 Revised and extended analysis of trebly ionized selenium: Se IV - *Noman*

Tue-114 The fourth spectrum of tin: Sn IV - *Kunari*

Tue-115 A New Simple Atom for Atomic Physics: e^+ bound to H^- in atomic state, H^{-+} - *Storry*

Atom Interferometry

Tue-116 Solitons, Interactionless BECs and Simultaneous Dual Isotopes in Atom Interferometry - *McDonald*

Tue-117 Compact atom interferometer inertial sensor with radially expanding atom ensemble - *Riedl*

Tue-118 Agile narrow linewidth single source laser system for onboard atom interferometry - *Theron*

Tue-119 A Mobile, Dual-Species Atom Interferometer for Equivalence Principle Tests in Micro-Gravity - *Barrett*

Tue-120 Matter-wave laser Interferometer Gravitation Antenna (MIGA) experiment for fundamental physics and geoscience - *Bertoldi*

Tue-121 Ytterbium Bose-Einstein condensate interferometer: current results and new construction. - *Plotkin-Swing*

Tue-122 Dynamic algebraically precise atom chip potentials - *Imhof*

Tue-123 Quantum interference experiments with macromolecules - *Eibenberger*

Tue-124 Atom interferometry of trapped BECs with tunable interactions - *Trenkwalder*

Precision Measurements and Fundamental Tests

Tue-125 Generation 2 of the ACME electron EDM search - *Baron*

Tue-126 Measuring the Xe-129 Permanent Electric Dipole Moment - *Degenkolb*

Tue-127 Cold and intense sources of large and heavy molecules for precision measurement of the electron EDM and parity violation - *Hendricks*

Tue-128 Interrogating the atomic nucleus with laser spectroscopy: francium (Fr) hyperfine anomaly and isotope shift measurements. - *Zhang*

Tue-129 Precision Measurement of Li Hyperfine & Fine Structure Intervals - *van Wijngaarden*

Tue-130 Nuclear Spin Dependent Parity Violation in Diatomic Molecules - *Altuntas*

Tue-131 Shifts due to quantum-mechanical interference from distant neighboring resonances - *Marsman*

Tue-132 Buffer gas cells and quantum cascade lasers: towards measuring parity violation in chiral molecules using vibrational spectroscopy - *Tokunaga*

Tue-133 Progress in barium tagging for the next generation ^{136}Xe double beta decay experiment - *Walton*

Tue-134 Towards an improved measurement of the n=2 triplet P fine structure of helium - *Kato*

Tue-135 Neutrino spectroscopy with atoms and molecules - *Masuda*

Tue-136 The Cold Atom Gravimeter at the μ-Gal-Level for Field Applications - *Wang*

Tue-137 Critical Nuclear Charge and Electron Charge Distribution for Two-Electron Atoms - *Drake*

Atomic Clocks

Tue-138 Progress Toward a Spin Squeezed Optical Atomic Clock Beyond the Standard Quantum Limit - *Braverman*

Tue-139 Near-Heisenberg-Limited Atomic Clocks in the Presence of Decoherence - *Borregaard*

Tue-140 Hunting for topological dark matter with atomic clocks - *Derevianko*

Tue-141 Trapping Ra^+: Optical Clock and Atomic Parity Violation - *Dijck*

Tue-142 Sorting ions in an two-species ion chain by amplitude-modulated laser beams for a new In^+ optical clock - *Ohtsubo*

Tue-143 Agile coherent control of ions in a microfabricated trap - *Thom*

Tue-144 Highly-charged ions for atomic clocks, quantum information, and search for α-variation - *Safronova*

New Experimental and Theoretical Techniques

Tue-145 High power, very narrow linewidth, micro-integrated diode laser modules designed for quantum sensors in space - *Kohfeldt*

Tue-146 Towards a fully-miniaturised magneto-optical trap system for portable ultracold quantum technology - *Aldous*

Tue-147 Locking Raman laser frequency of up to 40 GHz offset for atom interferometers - *Wang*

Tue-148 Optical phase locking of two extended-cavity diode lasers : direct modulation and serrodyne modulation - *Yim*

Tue-149 A Dynamic Magneto-Optical Trap for Atom Chips - *Rushton*

Tue-150 Holographic Laguerre-Gaussian beams for long-distance channeling of a 2D-MOT generated cold atom beam. - *Carrat*

Thursday Poster Session

Fermi Gases

Thu-001 Boltzmann-Vlasov approach and Fermi surface anisotropy in dipolar Fermi gases - *Veljić*

Thu-002 Specific heat and strong-coupling effects in the BCS-BEC crossover regime of an ultracold Fermi gas - *van Wyk*

Thu-003 Perron-Frobenius theorem on the superfluid transition of an ultracold Fermi gas - *Sakumichi*

Thu-004 Numerical Analysis of Fermion Transport Based on Nonequilibrium Thermo Field Dynamics - *Imai*

Thu-005 Triplet pair correlation in a trapped s-wave superfluid Fermi gas at T=0 - *Endo*

Thu-006 Diagrammatic Monte Carlo study of the Fermi polaron - *Vlietinck*

Thu-007 Strongly dipolar Fermi gases of erbium atoms - *Aikawa*

Thu-008 Quantum Monte Carlo simulations of muticomponent Fermi systems - *Sakaida*

Thu-009 Decoherence of many fermions in an optical lattice due to spontaneous emissions - *Sarkar*

Bose Gases

Thu-010 Faraday waves in collisionally inhomogeneous multi-component Bose-Einstein condensates - *Balaž*

Thu-011 Stochastic Coupled Growth of 2-Component Bose-Einstein Condensates - *Proukakis*

Thu-012 Creation of Topological Monopole Defects In a Quantum Field - *Tiurev*

Thu-013 Observation of Dirac monopoles in a synthetic magnetic field - *Ray*

Thu-014 Spin-nematic order and phase locking in antiferromagnetic spinor condensates - *Frapolli*

Thu-015 Quantum fluctuation of soliton in Bose-Einstein condensate beyond Bogoliubov approximation - *Takahashi*

Thu-016 Classical and quantum reflection of bright matter-wave solitons - *Marchant*

Thu-017 Bright solitons in quasi-one-dimensional dipolar condensates with spatially modulated interactions - *Abdullaev*

Thu-018 Modeling Bose-Einstein Condensates in Non-Uniformly Rotating Reference Frames - *Kandes*

Thu-019 Persistent Non-Equilibrium States In Perfectly Spherical Potentials - *Lobser*

Thu-020 Dynaimcs of Breather in linearly coupled Bose-Einstein Condensates - *Su*

Thu-021 Scissors mode and quantized vortices generated in sodium Bose-Einstein condensates by a rapid modulation of the magnetic field - *Yamazaki*

Thu-022 Position-dependent spin-orbit coupling for ultracold atoms - *Juzeliūnas*

Thu-023 Toward simulating artificial gauge fields with atom-chip based quantum simulator - *Sugawa*

Thu-024 Roton and phonon modes softening in quantum gases with spin-orbit coupling - *Ji*

Thu-025 Experimental apparatus for producing the Bose-Einstein condensate of Ytterbium(Yb) - *Mun*

Thu-026 Numerical analysis of quantum transport equation derived from nonequilibrium Thermo Field Dynamics in Markovian approximation - *Kuwahara*

Thu-027 Experimental probing of non-equilibrium Quantum Many-Body Systems - *Schweigler*

Thu-028 Creation of excitations from a uniform impurity motion in the condensate - *Suzuki*

Thu-029 Structure factor of ultra-cold bosons in two-dimensional optical lattices - *Zaleski*

Thu-030 Quantum state for zero mode of cold atomic gas system with Bose-Einstein condensate - *Nakamura*

Few Body Interactions and Collisions

Thu-031 Two-particle coalescences for the helium-like ions. - *Liverts*

Thu-032 Full control over two interacting fermions in a single double well - *Murmann*

Thu-033 Ultracold mixtures of metastable He and Rb: scattering lengths from *ab initio* calculations and thermalization measurements - *Knoop*

Thu-034 Efimov Resonances in a Mixture with Extreme Mass Imbalance - *Ulmanis*

Thu-035 The influence of confinement, dimensionality, and anisotropy on effective multibody interactions of trapped ultracold bosons. - *Johnson*

Thu-036 Towards optical Feshbach resonances with ^{40}Ca - *Pachomow*

Thu-037 Long range interactions of Sr and Yb in mixed quantum gases. - *Porsev*

Thu-038 The Degenerate Unitary Bose Gas - *Xie*

Ultracold Mixtures and Molecules

Thu-039 Dipolar gases of ground state molecules: NaK in Hannover - *Zenesini*

Thu-040 Precision measurements with ultracold Sr_2 molecules in optical lattices - *McGuyer*

Thu-041 Rf-induced association of ultracold molecules in ^{87}Rb. - *Mordovin*

Thu-042 Photoassociative production of Feshbach molecules of ytterbium by using the ultranarrow $^1S_0$-$^3P_2$ transition - *Taie*

Thu-043 Isotopic analysis of Na-K Feshbach resonances and molecules - *Simoni*

Thu-044 Ultracold molecules: far-from-equilibrium quantum magnetism - *Hazzard*

Cooling and Trapping of Atoms and Ions

Thu-045 A dual species magneto-optical trap of Cs and Yb - *Freytag*

Thu-046 Two-Stage Magneto-Optical Trapping of ^{6}Li Using D2 Line and Narrow-Line Cooling to High Phase-Space Density - *Sebastian*

Thu-047 Grey-molasses cooling of an optically trapped Fermi gas - *Edge*

Thu-048 Dual isotope magneto-optical trap with only one laser beam - *Hamzeloui*

Thu-049 Magneto-optical traps for Yb, Tm, Er, and Ho loaded from a buffer-gas beam source - *Chae*

Thu-050 Neutral Gas Sympathetic Cooling of an Ion in a Paul Trap - *Chen*

Thu-051 Quantum interactions in a hybrid atom-ion trap - *Schowalter*

Thu-052 Advancing surface-electrode ion trap capabilities: demonstrations of ball grid arrays, active in-vacuum control electronics, and integrated diffractive optics - *Amini*

Thu-053 Nano-friction between crystals of light and ions with atomic resolution and control from one- to many-body physics - *Bylinskii*

Thu-054 'Alligator' photonic crystal waveguides for single-atom trapping and strong light-matter interactions - *Yu*

Quantum Optics and Cavity QED

Thu-055 Injection of angular momentum in a polariton superfluid - *Glorieux*

Thu-056 Observation of Grand-canonical Number Statistics in a Photon Bose-Einstein condensate - *Schmitt*

Thu-057 Light-Wave Mixing and Scattering with Quantum Gases - *Deng*

Thu-058 Sympathetic cooling of a membrane oscillator in a hybrid mechanical-atomic system - *Kampschulte*

Thu-059 Optical Frequency Combs and Temporal Solitons in Optical Microresonators - *Jost*

Thu-060 Self-organized optomechanical structures - *Ackemann*

Thu-061 Feedback cooling using a near-Heisenberg-limited position measurement - *Wilson*

Thu-062 Optomechanics with ultra cold Rydberg gases - *Wüster*

Thu-063 Cavity Opto-Mechanics with Cold Atoms: Force Sensing near the Standard Quantum Limit and Coupled Oscillators - *Spethmann*

Thu-064 From membrane-in-the-middle to mirror-in-the-middle with a high-reflectivity sub-wavelength grating - *Xu*

Thu-065 A scanning cavity microscope - *Hunger*

Thu-066 Thermodynamic corrections to mechanical oscillations - *Wang*

Thu-067 A Useful Entanglement Resource; 10 dB Spin Squeezing with Cavity QND Measurements - *Cox*

Thu-068 Quantum metrology frontiers with highly squeezed quantum states of atomic ensembles - *Hosten*

Thu-069 Quantum Zeno dynamics of a Rydberg atom - *Gleyzes*

Thu-070 Generation of multiparticle entangled states using quantum Zeno dynamics - *Barontini*

Quantum Information

Thu-071 Many-particle entangled states of two-component Bose-Einstein condensates - *Schmied*

Thu-072 Atomic twin Fock states in momentum space - *Lopes*

Thu-073 Quantum networking and sensing efforts at the Army Research Laboratory - *Stack*

Thu-074 Towards the Detection of Momentum Entangled Atom Pairs - *Keller*

Thu-075 Control of Quantum Dynamics on an Atom-Chip - *Herrera*

Thu-076 High-fidelity cluster state generation of ultracold atoms in an optical lattice - *Tokunaga*

Thu-077 Coherent optical memory with 94% efficiency - *Hsiao*

Rydberg Atoms

Thu-078 Towards Single-Photon Nonlinear Optics via Pattern Formation in Spatially Bunched Atoms - *Schmittberger*

Thu-079 Optical properties of a strongly correlated array of induced dipoles - *Bettles*

Thu-080 Photonic Controlled-Phase Gate Based on Rydberg Interactions - *Khazali*

Thu-081 Single-Photon Switch and Transistor Based on Rydberg Blockade - *Duerr*

Thu-082 Strongly Interacting Photons in a Rydberg Polariton Gas: Few Photon Spectroscopy and Coulomb Bound States - *Gullans*

Quantum Simulation

Thu-083 Generating topological spin textures in spinor Bose-Einstein condensates by a stimulated Raman interaction - *Hansen*

Thu-084 Stability of a Floquet Bose-Einstein condensate in a one-dimensional optical lattice - *Choudhury*

Thu-085 Topological phases in spin-orbit coupled dipolar bosons in a one-dimensional lattice - *Ng*

Thu-086 Fractionalized Majorana fermions (parafermions) with ultracold atoms - *Maghrebi*

Thu-087 *p*-wave pair amplitude and *s*-wave superfluid phase transition in the BCS-BEC crossover regime of an ultracold Fermi gas with a spin-orbit interaction - *Yamaguchi*

Thu-088 Implementation, phase structure and real time dynamics in atomic quantum simulators of lattice Gauge-Higgs theory - *Kasamatsu*

Thu-089 Collective mode analysis of a Bose-Einstein condensate in a density-dependent gauge potential - *Edmonds*

Thu-090 Synthetic Spin-Orbit Coupling Without Light - *Anderson*

Thu-091 Self-organized Rice-Mele model in ultracold atoms - *Przysiężna*

Thu-092 Optical-lattice Floquet systems - *Eckardt*

Thu-093 Measuring geometric phases in Bloch bands: The topology of a Dirac cone - *Reitter*

Thu-094 Quantum magnetism of bosons with synthetic gauge fields in one-dimensional optical lattices: a Density Matrix Renormalization Group study - *Piraud*

Thu-095 Synthetic fields in synthetic dimensions - *Stuhl*

Thu-096 Topologically Robust Transport of Photons in a Synthetic Gauge Field - *Mittal*

Thu-097 Atomic Hong-Ou-Mandel effect in tunnel-coupled optical tweezers - *Kaufman*

Thu-098 Quantum co-walking of two interacting particles in one-dimensional lattices - *Qin*

Thu-099 Direct Observation of Strongly Correlated Bosonic Quantum Walks - *Ma*

Thu-100 In situ probing of interacting fermions in an optical lattice - *Cocchi*

Thu-101 Fermi Gas Microscope with Lithium-6 - *Parsons*

Thu-102 Quantum gas microscope of ytterbium atoms - *Miranda*

Thu-103 Experimental demonstration of more than 100 individually addressable qubits for quantum simulation and quantum computation - *Schlosser*

Thu-104 Qubit fidelity of a single atom transferred among the sites in a ring lattice - *Yu*

Thu-105 Coherent dipole-dipole coupling between two single atoms at a Förster resonance - *Ravets*

Thu-106 A 2D array of Rydberg coupled atomic qubits - *Lichtman*

Spectroscopy, Atomic and Molecular Structure

Thu-107 The $4d^8$ - $4d^7(4f + 6p)$ transitions of In VI - .

Thu-108 Photoionizing $^{174}Yb^+$ to $^{174}Yb^{2+}$ - *Heugel*

Thu-109 Precision frequency measurement of transitions between singlet states in atomic helium - *Luo*

Thu-110 Probing near threshold double and single ionization of helium atoms - *Purohit*

Thu-111 The dynamical properties of autoionization of rare-earth Eu atom - *Dai*

Thu-112 Enantiomer-specific detection of chiral molecules via microwave spectroscopy - *Patterson*

Thu-113 Theoretical transition rates of forbidden lines in doubly-ionized iron group elements - *Fivet*

Thu-114 Second Spectrum of Selenium - *Tauheed*

Thu-115 High-precision nonadiabatic calculations of dynamic polarizabilities and hyperpolarizabilities for low-lying vibrational-rotational states of hydrogen molecular ions - *Tang*

Thu-116 Atomic hyperpolarisabilities and the non-linear optics of atomic gases - *Grunefeld*

Thu-117 Measurement of the 5D Level Polarizability in Laser Cooled Rb Atoms - *Snigirev*

Atom Interferometry

Thu-118 An analog of polarization in atom optics: a Raman waveplate to measure the Gouy phase in matter waves - *Schultz*

Thu-119 Atomic matter-wave interferometer on an external atomchip - *Kim*

Thu-120 A programmable broadband low frequency active vibration isolation system for atom interferometry - *Tang*

Thu-121 Manipulation of atomic velocities with broadband light-pulse atom interferometry - *Gregory*

Thu-122 A milliradian phase resolution Ca atom interferometer with transparent ITO electrodes - *Akentyev*

Thu-123 Large Momentum Transfer and Faster Signal Scalings in Acceleration-Sensitive Atom Interferometry - *McDonald*

Precision Measurements and Fundamental Tests

Thu-124 Progress towards in-beam hyperfine spectroscopy of antihydrogen - *Widmann*

Thu-125 ALPHA-2: an upgraded apparatus for physics with trapped antihydrogen - *Eriksson*

Thu-126 Positron storage for the production of an antihydrogen beam - *Murtagh*

Thu-127 Production of a cold antihydrogen beam with a cusp trap - *Radics*

Thu-128 Hyperfine structure and relativistic corrections to ro-vibrational energy levels of the D_2^+ ion - *Zhang*

Thu-129 μTest of the change of m_p/m_e using laser cooled and optically trapped ^{40}CaH - *Kajita*

Thu-130 Test of m_p/m_e variation via measurement of N_2^+ vibrational transition frequencies - *Kajita*

Thu-131 Test of Einstein Equivalence Principle with bosonic and fermionic quantum matter: Search for spin-gravity coupling effects - *Tarallo*

Thu-132 Species-Selective Lattice Launch for High-Precision Atom Interferometry - *Chamakhi*

Thu-133 Testing General Relativity in a terrestrial lab through laser gyroscopes - *Beverini*

Atomic Clocks

Thu-134 Magic wavelengths measurement via observation of light shift on $^{40}Ca^+$ optical frequency standard - *Gao*

Thu-135 Determination of the magic wavelength for the $^1S_0$ – $^3P_0$ transition in magnesium 24 - *Fim*

Thu-136 Improving the stability of an atomic clock - *Schioppo*

Thu-137 Reducing the Uncertainty of Blackbody Radiation Shift in a Strontium Optical Clock - *Al-masoudi*

Thu-138 Precise characterization of the blackbody radiation environment in an optical lattice clock - *Beloy*

Thu-139 The SOC2 transportable ^{171}Yb lattice clock - *Goerlitz*

Thu-140 An ultra-low frequency-noise laser based on a 48 cm long ULE cavity for a Sr lattice clock - *Häfner*

Thu-141 Dual species intercombination MOT of ^{171}Yb and ^{87}Sr: Toward a dual optical lattice clock - *Akamatsu*

Thu-142 Measurement of the clock-transition spectrum of the ultracold ytterbium atoms - *Xu**

Thu-143 Comparison between a strontium optical lattice clock with primary and secondary frequency standards - *Robyr*

New Experimental and Theoretical Techniques

Thu-144 Non-destructive imaging and feedback stabilized production of cold atomic clouds - *Gajdacz*

Thu-145 Dispersive probing as a tool for monitoring dynamical processes in ultracold gases - *Deb*

Thu-146 Compact semiconductor laser modules for precision quantum optical experiments in space - *Lewoczko-Adamczyk*

Thu-147 Subwavelength alteration of one-dimensional optical lattices using radiofrequency-induced adiabatic potentials - *Lundblad*

Thu-148 Scalable 2D array of dipole traps formed by pinhole diffraction for neutral atom quantum computing - *Gillen-Christandl*

Thu-149 Design of optical Talbot focal point array for neutral atom quantum computing - *Kim*

Thu-150 Bose-Einstein Condensation in a Periodic Magnetic Lattice - *Wang*

Beyond Atomic Physics

Thu-151 Generalized Thermodynamic Properties - *Morales*

Thu-152 Supersymmetry, shape invariance and the hypergeometric equation - *Pushpa*

Thu-153 On the Geometric Implications of Maxwell's Equations - *Smith*