



# The 27th International Conference on Atomic Physics

## Monday, July 18, 2022

**Poster session: Monday - Hart House (5:00 PM - 6:30 PM)**

[id] title	presenter	board
[16] Generation of photons from vacuum in cavity via time-modulation of a qubit invisible to the field	DODONOV, Alexandre	
[365] Quantum Control of Ultracold NaCs Ground State Molecules	YUAN, Weijun	
[39] Emergent atom pump in a non-hermitian system		
[202] Evaluation of the blackbody radiation shift uncertainty of the NRC strontium ion clock		
[91] Emergent Spin Dynamics in a Superradiant Quantum Gas: From dynamical tunnelling to atomic mode parametric amplifiers		
[83] From superradiance to subradiance : exploring the many-body Dicke Ladder		
[75] Rapid Quantum Squeezing by Jumping the Harmonic Oscillator Frequency		
[117] Novel Quantum Control Methods in a Rubidium-87 Bose-Einstein Condensate		
[327] Dilute quantum liquid in a K-Rb Bose mixture		
[135] Development of a Deep-ultraviolet Chirped Pulse Laser for Doppler Cooling of Positronium		
[5] Simultaneous trapping and cooling of sodium and potassium atoms towards quantum degeneracy	Mr SUTRADHAR, Sagar	
[134] Catching a particle inside a barrier		
[282] Dynamic cryogenic radiation shield for sub- $10^{-19}$ W blackbody radiation shift uncertainty in optical lattice clocks		
[145] Universal Properties of Anisotropic Dipolar Bosons in Two Dimensions		
[126] Ultrafast Rydberg experiments with ultracold atoms in optical tweezers		
[391] Effects of pump pulse length on photon number in quantum dot emission		
[339] The integration of 2D atomic arrays with photonic crystal waveguides		
[349] Experiment and theory for a helium tune-out frequency: an independent test of quantum electrodynamics		
[298] Muonium 1S-2S spectroscopy with improved statistics		
[13] Synthetic Dimensions of Trap States in cold atoms	SMITH, Aaron	
[151] Progress in experimental control of trapped ion motional states with applications for CVQC and quantum sensing*		
[165] Size-energy universality in van der Waals self-bound systems		
[208] Dynamics following an interaction quench in the BEC-BCS crossover and machine-learning the phase diagram		
[276] On Demand Formation of Polar Core Vortices in Ferromagnetic Spinor Bose Einstein Condensates		

[329] New Applications and Current Limitations of Rydberg Sensors		
[156] Towards a compound $^{27}\text{Al}^+ - ^{40}\text{Ca}^+$ and multi-ion $^{40}\text{Ca}^+$ clock		
[340] What Does Entanglement Sudden Death Require?		
[337] An Optical Atomic Clock Based on a Highly Charged Ion		
[200] Fast Preparation and Detection of a Rydberg Qubit Using Atomic Ensembles		
[304] Enhancing production of slow beams of laser-coolable molecules		
[152] Measurement-Based Quantum Machine Learning		
[232] Exploring the Lithium Few-Body Puzzle with the DITRIS Interferometer and with Minimal Multi-Channel Models		
[260] Control and Entanglement of Rydberg Atoms near a Nanophotonic Device		
[204] Can a photon cause atoms to be excited for a negative amount of time? (experimental progress)		
[388] A mobile impurity strongly driven in a Fermi sea		
[33] Cold Ion-Molecule Reactions Relevant to Astrochemistry		
[35] Collective Radiative Dynamics of an Ensemble of Cold Atoms Coupled to an Optical Waveguide		
[22] One- and two-axis squeezing via laser coupling in an atomic Fermi-Hubbard model	HERNÁNDEZ YANES, Tanausú	
[27] New Perspectives on Quantum Transition Times: The Tunneling Flight Time	RIVLIN, Tom	
[52] Rabi vector magnetometry implemented with hot alkali vapor		
[371] EDMcubed (Electric Dipole measurement using Molecules in a Matrix): Towards a measurement of the electron electric dipole moment using BaF molecules embedded in a solid Ar matrix		
[73] From a polaron into a cluster: the fate of an impurity in a Bose-Einstein condensate		
[72] Measurement-only phase transitions in 2D via non-commuting two qubit measurements		
[59] Interferometry on the Clock Transition in Sr-87 with Entangled Atoms in Momentum State Superpositions		
[80] On the prospects of optical cycling in diatomic cations: Effects of transition metals, spin-orbit couplings, and multiple bonds		
[100] Scalable arrays of micro-fabricated Penning traps for quantum computation and simulation		
[103] Spin-charge separation in a 1D Fermi gas with tunable interactions		
[123] Development towards a hybrid quantum repeater		
[127] Orbital Feshbach Molecules		
[307] Dynamics in a spin imbalanced gas of Li6		
[132] Catalyzation and domain supersolidity in binary dipolar condensates		
[328] Towards the creation of ultracold, neutral plasmas with oppositely charged particles of equal mass via long-range Rydberg molecules		
[191] Integrability, ultracold matter and quantum sensing		
[192] Quantum simulation with Rydberg states of lanthanide atoms		

[253] Laser cooling Cd atoms and AlF molecules in the deep UV		
[316] Towards a continuous wave superradiant calcium laser		
[176] Mollow Triplet in optically trapped single atom		
[375] Efficient production of an array of fully-quantum-state-controlled polar molecules		
[224] Cavity-QED Quantum Simulator of Random Spin Models		
[291] Towards nano-structured potentials: coupling of an ultra cold atomic gas with a surface and sub-wavelength imaging.		
[317] Toward the realization of single quantum impurities in a new ultracold ytterbium experiment		
[356] Laser cooling AlCl molecules in the deep-ultraviolet		
[158] Quantum Rabi dynamics of trapped atoms far in the deep strong coupling regime		
[296] Many-body Quantum Necklace States in Waveguide QED		
[258] Symmetry-violating properties for precision measurements in diatomic molecules		
[360] Progress Towards Precision Measurements in Trapped Polyatomic Molecules		
[308] Simulating Gauge Theories in $1+1$ d with Bosonic Quantum Circuits		
[233] Developing a high-resolution Doppler broadening spectroscopy for cold positronium		
[219] Detection of Berezinskii-Kosterlitz-Thouless transition via Generative Adversarial Networks		
[183] Next-Generation Strontium Ion Optical Atomic Clocks		
[237] Quantum computing with metastable states in trapped Barium ions		
[387] Experimental Upgrades For Improving Statistical And Systematic Uncertainties In ACME III		
[218] Aquila: a field-programmable atom array on the cloud		
[173] Parametric excitations in a quantum gas with Bogoliubov-de Gennes method		
[390] Low-Phase-Noise Diode Laser Systems for the STIRAP transfer of Ultracold $^6\text{Li}$ Molecules		
[101] High-Precision Mass Measurements of Light Atomic Nuclei: The Helium-4 Atomic Mass		

# Tuesday, July 19, 2022

**Poster session: Tuesday - Hart House (5:00 PM - 6:30 PM)**

[id] title	presenter	board
[15] Precision calculation of polarizability of heavy ions and atoms for physisorption with 2D materials	Ms KAUR, Harpreet	
[345] Dipolar quantum droplets and supersolids	PFAU, T	
[14] Magnetically mediated hole pairing in fermionic ladders of ultracold atoms	CHALOPIN, Thomas	
[26] Nanostructured Alkali-Metal Vapor Cells	CUTLER, Tom	
[37] A single cold atom as a single-photon detector.		
[41] Quantum sensor networks as exotic field telescopes for multi-messenger astronomy		
[76] Enhancing fiber atom interferometer by in-fiber laser cooling		
[49] Correlations in the process of strong field ionization		
[207] Correlation spectroscopy of a planar 91-ion crystal in a novel monolithic Paul trap		
[105] Towards a Fermi Gas Microscope with Tunable Lattice Geometry		
[107] Progress on the CeNTREX TIF Schiff Moment Search		
[48] Transport in the 2D Fermi-Hubbard model: Lessons from weak coupling		
[74] Efimov universalities, Bose polarons and turbulence with ultracold 39K in a 3D box trap		
[194] Update of the JILA Gen. II eEDM Experiment		
[96] Towards a strontium quantum gas microscope		
[238] High Speed THz Imaging with Rydberg Atoms		
[66] Atomic spin-controlled non-reciprocal Raman amplification of fibre-guided light		
[58] A performance bound for quantum thermal machines		
[87] Site-Resolved Imaging of a bosonic Mott insulator of 7Li atoms		
[63] Imprinting persistent currents in fermionic superfluid rings		
[85] Atmospheric channel measurements for long-range optical time transfer and quantum state dissemination		
[60] Tomography of Feshbach Resonance States		
[95] Connecting Quantum Information Scrambling with Entanglement Enhanced Metrology		
[102] Rydberg Engineering: Recent Techniques for Sensitive Field Measurements		
[128] Progress on Zeeman slowing of CaF		
[122] Realization of a ferromagnet in an atomic superfluid		
[305] Towards a two-photon optical clock in calcium		
[309] Nonequilibrium states of driven-dissipative quantum gases		
[267] Silicon-photomultiplier embedded photodetector for ACME III		

[228] Benchmarking a large-scale quantum simulator with useful applications		
[21] Fabrication of atomic vapor cell for atomic sensors	Dr YIM, Sin Hyuk	
[133] Tunneling Times and Interaction-Driven Spin Rotations in a Two-component BEC		
[20] Electric-field measurement in cold ion clouds	Mr DUSPAYEV, Alisher	
[227] Enriching the quantum toolbox of ultracold molecules with Rydberg atoms		
[148] Time-dependent variational Monte Carlo study of the dynamic response of bosons in an optical lattice		
[261] Vector magnetometry with microwave-assisted optical pumping in warm Rb atoms		
[313] A simplified cold Sr experiment for cavity-based quantum simulation	REICHEL, Jakob	
[350] Atomic arrays driven by broadband squeezed light		
[235] Investigating ultracold collisions with $^{23}\text{Na}^{39}\text{K}$ ground-state molecules		
[300] Rotation Sensing Using Point Source Atom Interferometry		
[262] Topological Electromagnetic Effects and Higher Second Chern Numbers in FourDimensional Gapped Phases		
[164] Switching a monolayer atomic mirror using a single Rydberg atom		
[139] Experimental Quantum Control on IBM Quantum System		
[314] Relativistic corrections to two-photon decay rates in heliumlike ions		
[354] Electron spin resonance spectroscopy using optically trapped polyatomic molecules		
[214] Narrowband biphoton source of maximal spectral brightness at ultralow pump power		
[193] A modified variational method for a quantum gas in a constrained surface		
[376] Site-resolved rotational state control of an optical tweezer array of ultracold dipolar molecules		
[406] High precision eigenvalues for the Rydberg S-states of helium for principal quantum numbers $n > 10$	SATI, Lamies	
[210] In-beam hyperfine spectroscopy of (anti-)hydrogen for tests of CPT and Lorentz invariance		
[140] Systematic effects in eEDM searches with BaF		
[330] Collective effects in dissipative quantum cellular automata		
[109] Observation of two-photon induced fluorescence of neutral carbon atom gases		
[318] Micro-integrated laser and frequency reference modules for operation in quantum technology applications		
[332] A transportable cold atom accelerometer for inertial navigation		
[357] A cold and slow beam of CH radicals for laser cooling and trapping experiments		
[255] Towards Microwave Shielding of Ultracold SrF Molecules		
[319] Unitary fermionic p-wave interactions in a 3D optical lattice.		
[198] Multimode microwave-to-optical conversion in warm 87-Rb atoms		

[320] Towards strong photon-photon interactions via cold atoms trapped near a slow-mode photonic crystal waveguide		
[201] Investigation of laser frequency offset on nonlinear conversion in Lyman-alpha laser system		
[283] Self-pinning transition in a mixture of two non-identical Luttinger Liquids		
[179] Binary collisions between quantum droplets: role of the Weber number		
[159] A novel trapped-ion quantum computer using optical tweezers and electric fields		
[212] Large spin atoms in optical lattices : spin textures and correlations		
[160] Low uncertainty absolute frequency measurement of the strontium ion optical clock transition		
[161] Quantum Correction to Josephson Oscillations		
[342] Tests of King's Linearity in Ca+		
[362] Progress Towards Measuring the Nuclear Magnetic Quadrupole Moment in YbOH Molecules		
[366] Wave turbulence in a homogenous 2D Bose gas		
[129] Higher-order effects of electric quadrupole fields on a single Rydberg ion		
[239] An Experiment to Measure the Electron's Electric Dipole Moment Using an Ultracold Beam of YbF Molecules		
[184] Functionalized Aromatic Molecules for Laser Cooling and Trapping		
[297] Striped Self-Bound Dipolar Droplets		
[373] Towards a new search for hadronic CP violation using ultracold assembled $^{223}\text{FrAg}$ molecules		
[170] Accurate and complete atomic data set for Cd XLVII		
[389] Observation of Stochastic Wavefunction Evolution from Dispersively Measured Bose-Einstein Condensates		
[9] Quantum science with programmable Strontium arrays in a Hubbard lattice	YOUNG, Aaron	
[223] A programmable quantum simulator with two-electron Rydberg atoms in optical tweezer arrays		
[240] Mesoscopic transport with a weakly-interacting Bose gas		

**Wednesday, July 20, 2022****Poster session: Wednesday - Hart House (5:00 PM - 6:30 PM)**

[id] title	presenter	board
[274] Evaluating states in trapped ions with local correlation between internal and motional degrees of freedom		
[352] Zeeman-Sisyphus Deceleration of Polyatomic Molecules		
[40] Collective excitation and decay of waveguide-coupled atoms: from timed Dicke states to inverted ensembles		
[31] Entanglement dynamics of bosons trapped in a 1D optical lattice	YAMASHIKA, Shion	
[36] Atomic magnetometry with Kalman Filters		
[46] Shear interferometry in microgravity with atomic ensembles in the picokelvin regime		
[70] On-chip trapped cold atom interferometer with spatial splitting		
[351] Exploring sound excitations in 2D Bose gases		
[82] Quantum nonlinear optics in atomic dual arrays		
[65] A new experiment on atomic tweezer arrays in a cryostat		
[62] B-field self-cancelling devices for atomic sensors		
[97] Breakdown of topological transport in a Hubbard-Thouless pump		
[124] FermiQP: A Fermion Quantum Processor		
[256] Feshbach-enhanced odd- and even-wave interactions between identical fermions in quasi-one-dimensional confinement		
[246] Velocity Selective Resonances from a Novel Optical Force		
[311] Probing Hubble Attenuation and Amplification in a Expanding and Contracting Bose Einstein Condensate		
[162] Arrays of Cold Rydberg Atoms for Electromagnetic Fields Sensing		
[182] Evaporation and Large Arrays of Laser Cooled CaF Molecules		
[250] Conditions for superluminal light propagation in a three-level medium		
[374] A transportable Yb optical lattice clock		
[209] Waveguide QED with Rydberg superatoms		
[404] Observation of a molecular bond between ions and Rydberg atoms using a high-resolution pulsed ion microscope		
[368] Barium-monofluoride within an argon solid: Calculations to support the EDMcubed scheme for measuring the electron electric dipole moment		
[171] Accurate and complete atomic data set for helium-like ions using Relativistic Configuration Interaction approach for singly and doubly excited states with $Z = 5 - 9$		
[143] Ancillary transitions in $^{171}\text{Yb}^+$ ion clocks for shift evaluation and tests of fundamental physics		
[344] Photoassociation Spectroscopy of RbYb near the Yb intercombination line		
[355] Prospects for Constraints on Nanometer-Range Non-Newtonian Gravity with a State-of-the-art Molecular Clock		



[172] Superradiance decoherence caused by long-range Rydberg-atom pair interactions		
[331] Entanglement generation in multilevel atomic arrays with dipolar interactions		
[197] Faraday waves in strongly interacting superfluids		
[303] Error budget in Cold Atom-based Inertial Sensors		
[119] Progress towards a magneto-optical trap for MgF molecules		
[99] Controlling reactive interactions with ultracold magnetic molecules		
[42] Heat rectification in ion crystals		
[181] Tracking the vector acceleration with a hybrid quantum accelerometer triad		
[359] Towards magnetoassociation of the ultracold open-shell RbSr molecule		
[335] A cold atom gyroscope for inertial navigation		
[321] Realization of dipolar XY quantum ferro & antiferromagnets with arrays of Rydberg atoms.		
[221] Upgrading the transportable optical lattice clock at PTB		
[272] Nuclear T-violation search using octupolar nuclei in a crystal		
[114] Quasi-continuous superradiance on the kHz clock transition of 88Sr		
[142] Polyatomic ultralong range Rydberg molecules		
[380] A Quantum Gas Microscope for RbCs and KCs Rovibration Ground State Molecules		
[190] Study of radiative properties of helium isoelectronic sequence		
[29] Quasi-BIC mode lasing in a quadrumer plasmonic lattice	SALERNO, Grazia	
[17] Entanglement of the macroscopic spins of two spatially separated Bose-Einstein condensates	COLCIAGHI, Paolo	
[141] Quantum Optimization of Maximum Independent Set using Rydberg Atom Arrays		
[47] Ultracold mixtures of Cr and Li atoms: theoretical prospects for controlled atomic collisions, LiCr molecule formation, and molecular precision measurements		
[86] Scale factor corrections for point-source atom interferometer gyroscopes		
[67] Improvements on direct-bonded copper, atom chips used for Cold-Atom Atomic Interferometry.		
[130] Long-lived phantom helix states in Heisenberg quantum magnets		
[77] Observation of Cooper Pairs in a Mesoscopic 2D Fermi Gas		
[106] Blueprint for a scalable, modular, fault-tolerant quantum computer based on state-of-the-art Rydberg atom arrays and optical cavities		
[220] Quantum caustics in many-body dynamics		
[150] Emergence of hydrodynamics and pairing in a two-dimensional few fermion system		
[111] Rydberg Atom Interactions with an Optical Nanofiber		
[299] Light-induced correlations in cold dysprosium atoms		

[285] Exploring the supersolid stripe phase in a spin-orbit coupled gas with unequal interactions		
[306] Very long baseline atom interferometry for tests of fundamental physics		
[10] Rydberg atoms in Bose-Einstein condensed environments: cold bubble chambers and mesoscopic entanglement	Dr WUSTER, Sebastian	
[343] Pathway to magneto-optical trapping of SrOH to probe for Dark Matter and EDMs		
[378] Suppression of Raman interaction due to destructive interference in alkali atoms		
[264] How much time do resonant photons spend as atomic excitations before being transmitted?		
[242] Towards Implanting Radioactive Polar Molecules in a Noble Gas Matrix for Fundamental Symmetry Tests		
[195] Atomic mass ratios of the proton, deuteron, triton and helium-3		
[88] Machine learning classification of two-dimensional vortex configurations.		
[163] Ultra-high vacuum chamber development for a Sr optical lattice clock with a Laguerre-Gaussian trapping geometry		
[112] Mutual friction and diffusion of two-dimensional quantum vortices		
[294] An eEDM sensitive experiment using BaF molecules		
[199] Engineering Multimode Entanglement among Atomic Ensembles		
[322] Scalable cryogenic experiment for trapped-ion quantum computing with long ion strings		
[269] Toward A 1D Chain Of Cold Rydberg Atoms Next To An Optical Nanofiber		
[379] Dicke superradiance and photon statistics in waveguide QED		
[367] Negative absolute temperature state in a triangular optical lattice		
[369] Towards a dual-species tweezer array of Na and Cs atoms		
[393] Programmable Interactions and Emergent Geometry in a 1D Array of Atomic Ensembles		
[38] A cryogenic neutral atom optical tweezer array		
[281] Training quantum denoisers		
[136] Atom Camera: Super-resolution imaging of an optical field with a single ultracold atom in an optical tweezers		

# Thursday, July 21, 2022

## Poster session: Thursday - Hart House (5:00 PM - 6:30 PM)

[id] title	presenter	board
[249] Optical clocks with trapped $^{40}\text{Ca}^+$ and $^{27}\text{Al}^+$ ions		
[19] Engineering a Fractional Quantum Hall State of Bosons in an Optical Lattice	Mr KIM, Sooshin	
[12] Ytterbium nuclear-spin qubits in an optical tweezer array	JENKINS, Alec	
[84] Stand-alone vacuum cell for compact ultracold quantum technologies		
[34] Observation of a continuous time crystal		
[113] Spin dynamics in optical lattices dominated by superexchange via virtual molecules		
[32] Violation of the Leggett-Garg inequality for a Bose condensate in a double-well potential	Mr SAKAMOTO, Tsubasa	
[92] Towards quantum control and spectroscopy of a single hydrogen molecular ion		
[104] Dicke superradiance in arrays of multilevel atoms		
[51] Manipulating and measuring states of an optomechanical resonator in the quantum regime		
[81] Exploring topology in synthetic quantum Hall systems using atomic dysprosium		
[116] Quantum Control of Motional States in Mixed-Species Trapped-Ion Crystals		
[251] Sagnac atom interferometer gyroscope with large enclosed area and multiple orbits		
[347] AION: An atom interferometer observatory and network		
[90] Multi-loop atomic Sagnac interferometry		
[325] Experimental realization of classic gates on trapped-ion qubits		
[6] Thermodynamics in nonequilibrium atom-field interactions	REICHE, Daniel	
[89] Nonequilibrium dynamics in a quenched ferromagnetic spinor Bose-Einstein condensate		
[53] Towards the development of an optical lattice clock using bosonic isotopes of mercury		
[71] Dynamical phases of matter in a periodic driven atom-cavity system		
[69] Noisy Atomic Magnetometry in Real Time		
[68] Cavity-induced density wave ordering in strongly correlated Fermi gases		
[247] Probing open- and closed-channel p-wave Feshbach resonances		
[288] Creating and measuring sub-wavelength volumes using quantitative absorption imaging of optically dense ensembles		
[78] Measurements of $n\text{p} - 2\text{s}$ transitions in the hydrogen atom		
[353] Quantum state control of optically trapped polyatomic molecules		
[155] Quantum gas microscopy of triangular lattice Mott insulators		
[180] Spin-wave quantum computing with atoms in a single-mode cavity		

[229] Experimental setup for trapping and controlling large registers of barium-ion qubits		
[361] SU(2) hadrons on a quantum computer		
[177] Two-beam self-oscillating OPM for low-drift high-precision DC magnetometry		
[295] Continuous Cold Strontium Atoms through a Cavity as a Frequency Standard		
[217] Effect of an optical dipole trap on resonant atom-light interactions		
[131] Observation of interaction-driven delocalization of the Anderson insulator in synthetic dimensions	SEE TOH, Jun Hui	
[185] Intra-Cavity Frequency-Doubled VECSEL System for Narrow Linewidth Rydberg EIT Spectroscopy		
[188] Ultracold fermions in optical superlattices		
[206] Entangling gates between bosonic qubits in trapped ions		
[225] eEDM-sensitive molecules trapped in neon ice		
[146] Chasing the last bit of STIRAP efficiency between metastable helium and Rydberg state.		
[147] Controlled Interactions between Ultracold KRb Molecules in Two Dimensions		
[187] Time-delayed optical feedback to a cold atom ensemble		
[358] Towards a cw superradiant laser: Continuous strong coupling and transport of 88Sr atoms in a ring cavity		
[364] Direct Laser Cooling of YO Molecules		
[370] Deflection of barium-monofluoride molecules		
[382] Reconfiguration algorithms and low-latency feedback control system to prepare large configurations of atoms in two-dimensional arrays of optical traps		
[384] Quantum correlated light beams from cascade four-wave mixing in cold atoms		
[277] Towards relativistic geodesy with a transportable aluminum ion quantum logic optical clock		
[310] An Atomic Fabry-Perot for the Generation and Measurement of Ultracold Wavepackets		
[149] Scalable Qubit Arrays for Quantum Computation and Simulation		
[372] Bosons in novel lattices: discontinuous quantum phase transitions and the Bose glass		
[270] Measuring the Chern number with weakly interacting spin-orbit-coupled Bose gases in optical lattices		
[386] Progress towards direct laser cooling and trapping of CaH molecules		
[153] Electric-field-controlled dipolar collisions between trapped polyatomic molecules		
[290] Towards a single-atom array strongly coupled to an optical microcavity for multiparticle entanglement		
[115] Characterization of high-fidelity Raman qubits		
[196] Update of the JILA Gen. III eEDM Experiment		

[98] NASA's Cold Atom Laboratory: a multi-user facility for quantum gas research on the International Space Station		
[324] A resonance facilitated three-channel model for p-wave scattering		
[383] Interactions and ultracold scattering of Cr with Yb		
[301] Towards Programmable Strontium Atomic Arrays with Holographic Metasurfaces		
[257] Perturbative calculation of the energy of an impurity immersed in a spin-1/2 Fermi superfluid in the Random-Phase Approximation		
[203] Preparation of the Spin-Mott State: A Spinful Mott Insulator of Repulsively Bound Pairs		
[144] An experiment to measure the electron's electric dipole moment using trapped ultracold molecules.		
[254] $s$ - $d$ potential in Cs $^2$ , revisited: observation of missing levels.		
[338] Interference of Bose-Einstein condensates with the Lee-Huang-Yang correction: a theoretical scheme		
[336] Optical switching of an atomic Bragg mirror around a nanofiber		
[293] Pattern formation in tilted optical lattices		
[175] Analyzing the hyperfine structure using the quantum orbit eccentricity		
[137] Parameter optimization for laser slowing and magneto-optical trapping of MgF molecules via motion simulation		
[167] Generating and detecting topological phases with higher Chern number		
[381] Measuring the $n=2$ triplet P fine structure of atomic helium using Frequency-Offset Separated Oscillatory Fields (FOSOF)		
[121] High-precision measurements of atomic structure in Lead and other multi-valence atomic systems		
[334] Direct frequency comb spectroscopy with two atom species for comb laser frequency stabilization		
[169] Can dipolar interaction shield dipolar relaxation?		
[222] Tomography of a number-resolving detector by reconstruction of an atomic many-body quantum state		
[125] Big Time Crystals in a Bouncing BEC		