8:00am Monday

A1 (5) Phase-sensitive Probes of the Pairing Symmetry in Fe-Based Superconductors. OB 201

A2₍₅₎ Topological Insulators and Topological Superfluids. OB 202

A3 $_{(5)}$ New Developments in Strontium Ruthenates. OB 203

A4 (5) Human Mobility: The Statistical Physics of When, Where, and How. OB 204

A5₍₅₎ Silicon Photonics. PB 256

A6 (5) Recent (algorithmic) Developments in Complex and Glass Systems. PB 253

A7₍₅₎ Single Chain Experiments: from Polymers to Biophysics. PB 254

A8₍₅₎ Quantum Opto-Mechanics. PB 255

A9₍₂₎ Optics of Nanostructures—Quantum Dots I. A105

A10₍₁₎ Single Molecule Biophysics and Chemical Physics I. A106

A11₍₀₎ Energy Conversion Followed by Energy Storage Methods. A107-A109

A12₍₀₎ Microfluidics I: Electrokinesis and Transport. B110-B111

A13₍₀₎ Convection and Crystal Growth. B112

A14 (2) Transport Properties of Nanostructures I: Single-Molecule Junctions. B113

A15 (0) Structural Materials, Defects, Deformation. B114

A16₍₀₎ Graphite and Intercalated Compounds. B115

A17 (1) Relaxation Dynamics of Polymeric Glasses I. B116

A18 (2) Multiscale Modeling in Polymer and Soft Matter Physics. B117

A19 (0) Polymer Blends. B118-B119

A20₍₁₎ Carbon Nanotubes: Functionalization and Growth. C120-122

A21₍₁₎ Graphene: Quantum Interference and Transport. PB 251

A22 (0) Graphene Applications. PB 252

A23₍₀₎ Density Functional Theory I. C125-C126

A24 (0) Spintronic Materials. D133-D134

A25₍₁₎ Dopants and Defects in Semiconductors - ZnO. D135

A26 (1) Recent Progress in Quantum Algorithms and Computational Complexity. D136

A27₍₀₎ Evolutionary and Ecological Systems. D137

A28 (2) Confined and Biological Water I. C124

A29 (1) Physics and Materials for Inorganic Photovoltaics: I. C123

A30 (3) Carbon Nanotubes: Chirality-Controlled Growth of Carbon Nanotubes and Nanostructures. D139

A31 (0) Spinor Degrees of Freedom and Rotation in Quantum Gases. E141

A32₍₂₎ Directed Self Assembly of Dots, Islands and Wires on Templates. E142

A33₍₂₎ Magnetization and Spin Dynamics I. E143

A34 (0) Nanomagnetism—Nanostructured Films. E144

A35₍₂₎ Spins in Semiconductors—Hyperfine Interactions. E145

A36₍₂₎ Bulk Properties of Complex Oxides—Perovskite Manganites. E146

A37 (1) Complex Oxide Thin Films—Conductivity at Oxide Interfaces. E147-E148

A38 (0) Quantum Criticality I: Kondo Lattice Systems. F149

A39 (1) Iron Superconductors: New Materials. F150

A40₍₁₎ Phonons and Electron Correlations in High Temperature Superconductors I. F151

A41₍₀₎ Superconductivity: Multilayers and Josephson Effects. F152

A42₍₁₎ Physics Teacher Preparation: Effective Strategies, National Models, and Challenging Issues. D138

Total Session A:42

11:15am Monday

- B1₍₅₎ Magnetism in Fe Pnictides and Chalcogenides. OB 201
- B2 (5) Theory and Experiment on Topological Insulators. OB 202
- B3 (5) How to Interest Middle School Children in Physical Science. OB 203
- B4 (5) Dynamics of Polymers on Multi-Length Scales: Solutions. OB 204
- B5₍₅₎ Five Legacies from the Laser. PB 256
- B6 (5) Controlling Dissipation in Quantum Systems. PB 253
- B7₍₅₎ Evolutionary Dynamics. PB 254
- B8 (5) Four Horsement of the Apocalypse Redux: The Physics of Global Catastrophes and Global Countermeasures. PB 255
- B9₍₀₎ Theory of Semiconductors. A105
- B10 (1) Single Molecule Biophysics and Chemical Physics II. A106
- B11 (0) Energy Storage Methods. A107-A109
- B12 (0) GSNP Graduate Student Prize and Liquid Crystals: Smectics. B110-B111
- B13 (1) Complex Networks I. B112
- B14₍₁₎ Electrodynamics of Metamaterials. B113
- B15₍₁₎ Advances in Scanned Probe Microscopy I: Novel AFM, MRFM, and Acoustic Microscopy. B114
- B16 (2) Organic Electronics and Photonics: Solar Cell Materials and Devices. B115
- B17₍₀₎ Surfaces, Interfaces and Thin Films. B116
- B18₍₁₎ Crystallization in Confined Geometry I. B117
- B19 (1) Thin Films Copolymers I. B118-B119
- B20₍₁₎ Carbon Nanotubes: Superconductivity, Electrical Properties. C120-C122
- B21 (1) Graphene: Magnetic Properties. PB 251
- B22₍₁₎ Graphene Structure: Local Probes. PB 252
- B23 (0) Strongly Correlated Systems I. C125-C126
- B24 (0) Dielectric, Ferroelectric, and Piezoelectric Oxides—Thin Film Multiferroics. D133-D134
- B25₍₂₎ Electric-to-Light Conversion and Optics in Semiconductors I. D135
- B26 (1) Semiconductor Qubits Silicon and III-Vs. D136
- B27 (0) Experimental Techniques in Biophysics. D137
- B28 (0) SPS Undergraduate Research I. C124
- B29 $\sp(1)$ Thermoelectrics I: Recent Concepts. C123
- B30₍₀₎ High Pressure I. D139
- B31₍₀₎ BEC/Matter Wave Optics. E141
- B32 (0) Structure and Morphology: Oxide Surfaces. E142
- B33 (0) Cooperative Phenomena Theory. E143
- B34 (0) Nanomagnetism—Exchange & Multiferroics. E144
- B35 (1) Spins in Semiconductors—Quantum Dots. E145
- B36 (0) Bulk Properties of Complex Oxides—Manganite Multiferroics. E146
- B37 (0) Complex Oxide Thin Films—LaAlO3/SrTiO3 Interfaces. E147-E148
- B38₍₀₎ Heavy Fermions I: URu2Si2 and other U- and Yb-based systems. F149
- B39 (1) Iron Based Superconductors Synthesis and Doping. F150
- B40 (1) Iron Based Superconductors Physical Properties I. F151
- B41 (0) Tunneling Spectroscopy of Superconductors. F152
- B42 (0) Charge, Spin, and Superconductivity. D138

Total Session B:42

2:30pm Monday

- D1 (4) Goeppert Mayer Award, IUPAP Young Scientist Award, and Apker Award Session. OB 201
- D2 (5) Correlated System including Topological Insulators: Materials, Measurements, and Majorana Modes. OB 202
- D3 (4) Materials for Solar to Electricity Conversion: Status and Future. OB 203
- D4₍₅₎ Quantum Computer Science. OB 204
- D5₍₆₎ Pais Prize Talk; Sam Goudsmit: Physics, Editor, and More. PB 256
- D6₍₅₎ Dynamics of Polymers on Multi-Length Scales: Interfaces. PB 253
- D7₍₅₎ Fluctuations and Critical Phenomena in Population Dynamics. PB 254
- D8₍₅₎ Spin Transport in Carbon-based Materials. PB 255
- D9₍₀₎ Semiconductor Structure and Mechanical Properties. A105
- D10₍₂₎ Single Molecule Biophysics and Chemical Physics III. A106
- D11₍₂₎ Physics of Bacteria I. A107-A109
- D12₍₀₎ Colloidal Crystals, Suspensions and Films. B110-B111
- D13 (0) Complex Networks II. B112
- D14₍₁₎ Transport Properties of Nanostructures II: Non-Equilibrium and Correlated Electron Phenomena. B113
- D15₍₁₎ X-ray and Neutron Instruments and Measurement Science I. B114
- D16 (1) Organic Electronics and Photonics: Solar Cells and Photophysics. B115
- D17₍₀₎ Liquid Crystalline Order in Polymer and Complex Fluids. B116
- D18₍₁₎ Crystallization in Confined Geometry II. B117
- D19 (1) Thin Films Copolymers II. B118-B119
- D20₍₁₎ Computational Design of New Materials—Structure/Property Relationships. C120-122
- D21₍₁₎ Graphene: Correlated States. PB 251
- D22 (0) Materials Chemically Derived from Graphene. PB 252
- D23 (0) Strongly Correlated Systems II. C125-C126
- D24 (0) Dielectric, Ferroelectric, and Piezoelectric Oxides—Bulk Multiferroics. D133-D134
- D25₍₁₎ Dopants and Defects in Semiconductors Nitrides, SiC. D135
- D26 (0) Semiconductor Qubits Silicon. D136
- D27 $_{(1)}$ Self-organization in Biological Cells and Tissue I. D137
- D28 (0) SPS Undergraduate Research II. C124
- D29 $_{(2)}\, Physics$ and Materials for Inorganic Photovoltaics: II. C123
- D30₍₁₎ Hydrogen Storage I. D139
- D31₍₀₎ Molecular and Dipolar Quantum Gases. E141
- D32 (0) Controlled Self Assembly and Growth. E142
- D33 (0) Complex Oxide Thin Films—Magnetic Oxides. E143
- D34₍₀₎ Nanomagnetism—Nanowires & Thermal Effects. E144
- D35 (1) Spins in Semiconductors—Topological Insulators. E145
- D36₍₂₎ Bulk Properties of Complex Oxides—Cobaltites and Vanadates. E146
- D37₍₁₎ Complex Oxide Thin Films—Oxide 2DEGs and Devices. E147-E148
- D38₍₀₎ Charge Density Waves. F149
- D39 (1) Iron Based Superconductors: Theory I. F150
- D40 (0) Superconductivity: Vortices. F151
- D41₍₀₎ Ruthenates and Unconventional Superconducting Pairing. F152
- D42₍₀₎ Topological Insulators: Experiment. D138
- Total Session D:42

5:45pm Monday

E1 (0) APS Prizes and Awards Ceremonial Session and Past President's Address. PORTLAND 251

8:00am Tuesday

- H1₍₅₎ Charge and Spin Transport in Josephson and Proximity Devices. OB 201
- H_{2 (4)} Recent Advances in Cell and Single Molecule Manipulation. OB 202
- H_{3 (5)} Room Temperature Semiconductor Spintronics. OB 203
- H4₍₅₎ Polymer Physics Prize. OB 204
- H₅ (5) Facing the Challenge of the LED Droop. PB 256
- H6 (5) Artificial Electromagnetism and other Gauge Fields in Cold Atomic Gases. PB 253
- H7₍₅₎ Optimization Principles in Biological Physics. PB 254
- H8 (4) Opportunities for Research and Employment in Transporation Science. PB 255
- H9₍₀₎ Optoelectronic Properties of Quantum Dots. A105
- H₁₀ (0) Physics of Bacteria II. A₁₀₆
- H11₍₁₎ Extreme Mechanics I. A107-A109
- H12₍₀₎ Statistical and Nonlinear Physics of Social Systems. B110-B111
- $\rm H13\,{\scriptstyle (0)}$ Liquid Crystals: Nanoparticles and Surfaces. B112
- H14₍₁₎ Transport Properties of Nanostructures III: Theory and Computation I. B113
- H15₍₀₎ Metals: Compounds, Magnetism. B114
- H16₍₀₎ Nanowires: Synthesis, Structural Properties and Growth Kinetics. B115
- H17₍₁₎ Relaxation Dynamics of Polymeric Glasses II. B116
- H18₍₀₎ Polymer Composites. B117
- H19₍₁₎ Long Range Order in Polymeric Structure and Morphology I. B118-B119
- H20₍₁₎ Carbon Nanotubes: Excitonic Effects. C120-C122
- H21₍₁₎ Graphene: Nanoribbons. PB 251
- H22₍₀₎ Epitaxial Graphene on Silicon Carbide. PB 252
- H23₍₀₎ Classical and Quantum Monte Carlo I. C125-C126
- $\mathrm{H}24_{\,(3)}$ Production and Application of Cold Molecules I. D133-D134
- H25₍₁₎ Dopants and Defects in Semiconductors Si. D135
- H26₍₀₎ Spin Qubits Diamond, III-Vs, and Coupling to Cavities. D136
- H27₍₂₎ Confined and Biological Water II. D137
- H28₍₂₎ New Frontiers in Electronic Structure Theory I. C124
- H29₍₂₎ Physics and Materials for Inorganic Photovoltaics: III. C123
- H30₍₂₎ Frontiers in Computational Thermodynamics of Materials. D139
- H31₍₀₎ Weakly and Strongly Interacting Fermions. E141
- H32 (1) Tribophysics—Fracture and Plasticity. E142
- $\rm H33_{~(2)}$ Magnetization and Spin Dynamics II. $\rm E143$
- H34₍₁₎ Frustrated and Low-D Magnetism—Spin Chains and Ladders. E144
- H35 (1) Spins in Semiconductors—DMS: Nitrides and Oxides. E145
- H36₍₁₎ Nanomagnetism—Spin Torque. E146
- H37 (1) Complex Oxide Thin Films—Manganites. E147-E148
- H38₍₀₎ Phase Transitions in Vanadium Oxides. F149
- H39₍₁₎ Iron Based Superconductors: Pairing Symmetry. F150
- H40₍₁₎ Phonons and Electron Correlations in High Temperature Superconductors II. F151
- H41₍₀₎ Superconductivity: Proximity Effects. F152
- H42₍₁₎ Research in Mathematics Education and Mathematics in Physics Education. D138

Total Session H:42

11:15am Tuesday

- J1 (5) The Gap Structure of the Fe Superconducters. OB 201
- J2 (5) Non-equilibrium Phenomena in Very High Landau Levels. OB 202
- J3 (5) Energy Research and Applications: Future Materials and Systems. OB 203
- J4 (5) Dynamics of Polymers on Multi-Length Scales: Melts. OB 204
- $\rm J5_{(5)}$ What Works for Women in Physics: Lessons Learned from Research. PB 256
- J6 (5) Advanced Electronic Structure Methods for Defects in Semiconductors and Insulators. PB 253
- J7 (5) Biofilms and Multicellularity. PB 254
- J8 (5) LaserFest: Laser Education and Outreach. PB 255
- J9 $_{(0)}$ Transport in Semiconductors I. A105
- J10₍₀₎ Protein-Protein Interaction and Protein Aggregation. A106
- J11 (0) Biological Networks & System Biology. A107-A109
- J12 (0) Carbon Nanotubes: Thermal Transport. B110-B111
- J13 (0) Systems Far From Equilibrium. B112
- J14 (1) Optics of Nanostructures Plasmons, Nanoantennas, and Quantum Dots. B113
- J15₍₁₎ Advances in Scanned Probe Microscopy II: Optical Techniques. B114
- J16 (1) Polymers and Energy: Photovoltaics I. B115
- J17 (0) Frank J. Padden Jr. Award Symposium. B116
- J18 (0) Physics of Copolymers. B117
- J19 (1) Hierarchically and Templated Ordered Systems I. B118-B119
- $\rm J20\,{}_{(1)}$ Carbon Nanotubes: Mechanical properties and Biosensors. C120-C122
- J21 (1) Graphene: Transport I. PB 251
- J22 (2) Carbon Nanotubes: Optoelectronic Devices. PB 252
- J23₍₂₎ Plyler Prize Session and New Trends in Spectroscopy I. C125-C126
- J24 (0) Topological Insulators: Theory. D133-D134
- J25₍₂₎ Electric-to-Light Conversion and Optics in Semiconductors II. D135
- J26 (1) Topological Quantum Computing. D136
- J27 (1) Confined and Biological Water III. D137
- J28 (2) New Frontiers in Electronic Structure Theory II. C124
- J29 $_{(1)}$ Thermoelectrics II: Dirac, Bi2Te3 & Nanostructures. C123
- J30 (1) High Pressure II: Equations of State. D139
- J31 (1) Hybrid AMO-condensed Matter Systems for Quantum Information Science. E141
- J32 (0) Structure and Morphology: Metal Surfaces. E142
- J33 (1) Spin Dependent Physics in Organic-Based Materials I. E143
- J34 (0) Correlated Electrons: New Materials. E144
- J35₍₁₎ Spins in Semiconductors—Spin Orbit Effects and Spin Relaxation. E145
- J36 (1) Nanomagnetism—Domain Dynamics. E146
- J37 (2) Novel Magnetic Devices Spin Torque I. E147-E148
- J38 (0) Heavy Fermions II: Ce-based 115 and 122 Systems. F149
- J39 (0) Iron Based Superconductors: Properties and Pressure. F150
- J40 (0) Strongly Correlated Models for Cuprate Systems. F151
- J41₍₀₎ Response to Electromagnetic Fields (Optical, Raman). F152
- J42 (0) General Theory, Methods, Education and Relativity. D138

Total Session J:42

2:30pm Tuesday

- L1 (5) Novel Probes of Electron Interactions in One-Dimensional Systems. OB 201
- L2 (5) Correlated States for Topological Quantum Computing. OB 202
- L3 (5) How to Predict Localized Hole-States in Oxides and Wide-Gap Semiconductors?. OB 203
- L4₍₃₎ Onsager and Heineman Prize Session. OB 204
- L5₍₅₎ Promoting Excellence: Preparation, Execution, and Opportunities. PB 256
- L6₍₅₎ Intracellular Fluid Dynamics. PB 253
- L7 (5) Educational Challenges in Biological Physics. PB 254
- L8 $_{(5)}$ Recent Advances and New Projects in Neutron and X-Ray Sources. PB 255
- L9₍₀₎ Optical Properties of Nanocrystals. A105
- L10₍₂₎ Single Molecule Biophysics and Chemical Physics IV. A106
- L11₍₁₎ Extreme Mechanics II. A107-A109
- $L12_{(0)}$ Granular Materials I. B110-B111
- L13 (0) Liquid crystals: Mostly Nematics. B112
- L14 (1) Transport Properties of Nanostructures IV: Charge Dynamics and Imaging of Photoactive Molecules. B113
- L15₍₀₎ X-ray and Neutron Instruments and Measurement Science II. B114
- L16 (0) Polymers and Energy: Photovoltaics II. B115
- L17 (1) Dillon Medal Symposium. B116
- L18₍₁₎ Long Range Order in Polymeric Structure and Morphology II. B117
- $L19_{\ (1)}$ Hierarchically and Templated Ordered Systems II. B118-B119
- L20₍₁₎ Computational Design of New Materials—Nanostructure Design. C120-122
- L21 (1) Graphene: Transport II. PB 251
- L22 (2) Carbon Nanotubes Alignment and Sorting: Device Applications. PB 252
- L23₍₀₎ Classical and Quantum Monte Carlo II. C125-C126
- L24 (1) Dielectric, Ferroelectric, and Piezoelectric Oxides—Applications. D133-D134
- L25₍₀₎ Optical and Electronic Properties of Semiconductors. D135
- L26₍₀₎ Spin Qubits Control, Transport, Architecture and Decoherence. D136
- L27₍₃₎ Confined and Biological Water IV. D137
- L28 (0) Nucleic Acids: Structure & Function. C124
- $L29_{\,(3)}$ Interface Controlled Organic Thin Films for Enhanced Device Performance. C123
- L30 (1) Hydrogen Storage II—Complex Hydrides. D139
- L31 (0) APS Editorial Q & A. E141
- L32 (1) Tribophysics—Sliding Friction. E142
- L33 (1) Spin Dependent Physics in Organic-Based Materials II. E143
- L34₍₀₎ Frustrated and Low-D Magnetism—Strongly Frustrated Antiferromagnets in 2D. E144
- L35 (0) Spins in Semiconductors—Spin Injection. E145
- L36 (1) Nanomagnetism—Tunnel Junctions. E146
- L37 (2) Novel Magnetic Devices: Spin Torque II. E147-E148
- L38 (0) Charge Order in One-Dimensional Systems. F149
- L39 (0) Iron Based Superconductors: Magnetism and Structure. F150
- L40 (a) Superconductivity: Electronic Structure (ARPES), F151
- L41 (1) Search for New Superconductors Heterostructures, Thin Films, Intercalated and High-Pressure Compounds. F152
- L42₍₀₎ High Reynolds Number Flows. D138

Total Session L:42

8:00am Wednesday

- P1 (5) Superconductivity and Magnetism of Iron Chalcogenides. OB 201
- P2 (5) Quantum Oscillations, Superconductivity, and Pseudogaps in Nanoscaled Metal Films and Islands. OB 202
- P3 (5) Emergent Behavior in Particle Systems Subjected to Time-Dependent Fields. OB 203
- P4 (5) Celebrating 50 Years of Lasers in Condensed Matter Physics: Dynamics & Imaging. OB 204
- P5 (5) Lattice Boltzmann Method and Its Applications. PB 256
- P6 (5) Fermions at Unitarity: Gravity, the Quark-Gluon Plasma, and Ultra-Cold Atoms. PB 253
- P7₍₄₎ Physics, Culture and the Arts. PB 254
- P8 (5) Physicists as Entrepreneurs. PB 255
- P9 (0) Electronic Properties of Quantum Dots. A105
- P10 (1) Physics of Behavior. A106
- P11 (0) Extreme Mechanics III. A107-A109
- P12 (0) Granular Materials II. B110-B111
- P13 (0) Membranes: General, Surface, Biological. B112
- P14 (1) Transport Properties of Nanostructures V: Theory and Computation II. B113
- P15 (0) Instrumentation for Nanoscale Science. B114
- P16 (0) Nanowires: Electronic and Optical Properties. B115
- P17 (1) Glass Transition in Thin Films I. B116
- P18 (1) Biological-Synthetic Hybrid Materials I. B117
- P19 (1) Physics of Polymer Nanocomposites I. B118-B119
- P20 (0) Carbon Nanotubes: Electron Transport. C120-C122
- P21 (0) Nano-Graphene. PB 251
- P22 (0) Bilayer Graphene. PB 252
- P23₍₀₎ Classical and Quantum Molecular Dynamics. C125-C126
- P24 (1) Dielectric, Ferroelectric, and Piezoelectric Oxides—Nanostructures. D133-D134
- P25 (0) Dopants and Defects in Semiconductors III-V's. D135
- P26 (0) Superconducting Qubits: Materials / Nanomechanical Resonators. D136
- P27 (2) New Trends in Spectroscopy II. D137
- P28 (2) New Frontiers in Electronic Structure Theory III. C124
- P29 $_{(1)}$ Thermoelectrics III: IV-VI's & Nanostructures. C123
- P30 (0) Nanopores and Related Structures for DNA Detection. D139
- P31 (0) Ultracold Gases in One Dimensional and Ring Geometries. E141
- P32₍₂₎ Tribophysics—Adhesion and Friction. E142
- P33 (0) Spin Dependent Physics in Organic-Based Materials III. E143
- P34 (1) Frustrated and Low-D Magnetism—Antiferromagnets on the Triangular Lattice. E144
- P35 $_{(1)}$ Spins in Semiconductors—GaMnAs Electronic Structure. E145
- P36 (1) Bulk Properties of Complex Oxides—Cobaltites. E146
- P37 (1) Complex Oxide Thin Films—Conductivity and Metal-Insulator Transition I. E147-E148
- P38 (0) Quantum Criticality II. F149
- P39 (0) Iron Based Superconductors: Theory II. F150
- P40 (1) Iron Based Superconductors: Physical Propertise II. F151
- P41₍₀₎ Tutorial for Authors and Referees. F152
- P42 (0) Superconductivity: Fluctuation Phenomena. D138

Total Session P:42

- 11:15am Wednesday
- Q1₍₄₎ Novel Superconductivity: Insights from a Materials Perspective. OB 201
- $\mathrm{Q2}_{\,(5)}$ Jamming. OB 202
- Q3₍₅₎ Physics for Everyone. OB 203
- Q4 (5) Celebrating 50 Years of Lasers in Condensed Matter Physics: Surfaces, Imaging & Technology. OB 204
- Q5 (5) A Critical Challenge for the Biotech Industry: The Measurement of Protein Associations. PB 256
- Q6₍₅₎ Science Literacy, the Nature of Science and Religion. PB 253
- Q7₍₅₎ Mechanics in Cell Biology. PB 254
- Q8₍₅₎ Magnonics: Spin Wave Processes in Magnetic Materials. PB 255
- Q9₍₀₎ Electronic Properties of Low Dimensional Systems. A105
- Q10₍₂₎ Physics of Biochips I. A106
- Q11₍₂₎ Self-organization in Biological Cells and tissue II. A107-A109
- Q12₍₀₎ Self-Assembly: Equilibrium and Non-Equilibrium. B110-B111
- Q13₍₁₎ Stochastic Processes in Biology I. B112
- Q14₍₁₎ Optics of Nanostructures: Quantum Dots and Nanomaterials. B113
- Q15₍₁₎ Advances in Scanned Probe Microscopy III: Spectroscopic Techniques at Low Temperatures. B114
- Q16 $_{(1)}$ Polymers and Energy: Fuel Cells and Batteries. B115
- Q17₍₁₎ Focus Session: Glass Transition in Thin Films II. B116
- Q18₍₁₎ Biological-Synthetic Hybrid Materials II. B117
- Q19 (1) Physics of Polymer Nanocomposites II. B118-B119
- Q20 (1) Graphene: Local Probes. C120-122
- Q21 (1) Graphene: Bilayers I. PB 251
- $\mathrm{Q}22\,{}_{(0)}\,\mathrm{Graphene}$ Junctions. PB 252
- Q23₍₀₎ Electronic Structure. C125-C126
- Q24₍₁₎ Dielectric, Ferroelectric, and Piezoelectric Oxides—Strain and Interfaces. D133-D134
- Q25 (0) QHE: Bilayers and Tunneling. D135
- Q26₍₀₎ Quantum Error Correction and Dynamical Decoupling. D136
- O27 (3) New Trends in Spectroscopy III. D137
- Q28 (2) New Frontiers in Electronic Structure Theory IV. C124
- Q29 $_{(1)}$ Thermoelectrics IV: Group IV's & Nanostructures. C123
- Q30 (0) High Pressure III. D139
- Q31 (1) Quantum Simulation using AMO Systems. E141
- Q32 (0) Self Assembly of Molecules on Surfaces. E142
- Q33 (1) Complex Oxide Thin Films—Oxide/Semiconductor Interfaces and Defects. E143
- Q34 (1) Frustrated and Low-D Magnetism—Spins, Orbitals, and Phonons. E144
- Q35 (0) Spins in Semiconductors—Spin Device Physics. E145
- Q36 (1) Bulk Properties of Complex Oxides—Fe-Based Multiferroics. E146
- Q37 (o) Complex Oxide Thin Films—Conductivity and Metal-Insulator Transition II. E147-E148
- Q38₍₀₎ Topological Insulators: Theory and Experiment. F149
- Q39 (0) Iron Based Superconductors: Theory III. F150
- Q40 (1) Iron Based Superconductors Physical Properties III. F151
- Q41₍₁₎ Phonons and Electron Correlations in High Tc Superconductors. F152
- Q42₍₀₎ Theory of Superconducting Properties. D138

Total Session Q:42

2:30pm Wednesday

- T1 (4) Prize Session: Buckley, Lilienfeld. OB 201
- T2 (5) Quantum Fluctuations and Magnetic Frustration in Strongly Correlated Metals. OB 202
- T3 (5) Materials with Topological Defects on Gaussian Curved Surfaces. OB 203
- T4 (5) Keithly Award Session: Precision Time and Frequency Measurements. OB 204
- T5₍₅₎ Measuring Magnetism at the Nanoscale. PB 256
- T6 (5) Graduate Education in Physics: Which Way Forward. PB 253
- T7₍₅₎ Avalanches in Condensed Matter. PB 254
- T8 (4) Panel Discussion: Emerging Scientific Powers in the East: China. PB 255
- T9 (1) Optics of Nanostructures Near Field, Single Molecule, and Plasmonics. A105
- $T10_{\,(2)}$ Physics of Biochips II. A106
- T11 (1) Single Molecule Biophysics and Chemical Physics V. A107-A108
- T12 (0) Microfluidics II: Devices. B110-B111
- T13 (0) Stochastic Processes in Biology II. B112
- T14 (o) Energy Resources Followed by Energy Production, Sustainability and Environment. B113
- T15₍₀₎ Metals, Compounds, and Metal-like Behavior. B114
- T16 (1) Organic Electronics and Photonics: Transport. B115
- T17 (1) Dynamics of Polymers and Complex Fluids I. B116
- T18 (0) Biological-Synthetic Hybrid Materials III. B117
- T19 (1) Polymer-Nanoparticle Interactions I. B118-B119
- $T20_{\ (2)}\ Computational\ Design\ of\ New\ Materials-Energy.\ C120-122$
- T21 (1) Graphene: Bilayers II. PB 251
- $T22_{\,(1)}$ Multiscale Materials (Theory, Modeling and Experiments that Bridge Scales). PB 252
- T23 (0) Density Functional Theory II. C125-C126
- T24 (2) Dielectric, Ferroelectric, and Piezoelectric Oxides—Domains. D133-D134
- T25 (0) QHE: Microwaves and Periodic Modulation. D135
- T26 (0) Superconducting Qubits: Measurements. D136
- T27 (0) Cellular Biomechanics. D137
- T28 (3) Production and Application of Cold Molecules II. C124
- T29 (0) Superconducting Devices and Applications. C123
- T30 (1) Hydrogen Storage III. D139
- T31 (0) Quantum Phase Transitions in Atomic and Molecular Systems. E141
- T32 (2) Self Assembly on Novel Templates. E142
- T33 (0) Novel Magnetic Materials. E143
- T34₍₀₎ Correlated Electrons: Theory. E144
- $T35_{\,(1)}\,Spins$ in Semiconductors -Spin Hall Effect and Spin Currents. E145
- T36 (1) Bulk Properties of Complex Oxides—Layered Manganites and Theory. E146
- T37 (1) Complex Oxide Thin Films—Interfaces and Superlattices. E147-E148
- T38 (0) Electronic Phase Transitions in Correlated Systems. F149
- T39 (1) Iron Based Superconductors: Scanning Probe. F150
- $T40\,{}_{(0)}$ Iron Based Superconductors: Doping and Magnetism. F151
- T41 (2) Search for New Superconductors Nanotubes and Fullerides. F152
- T42 (0) Superconductivity: Spin Properties. D138

Total Session T:42

5:45pm Wednesday

U1₍₁₎ Nobel Prize Session. PB 252

7:30pm Wednesday

U45 (3) "Trends" in the APS Publication Physics. Portland Hilton Pavillion Ballroom

8:00am Thursday

V1₍₅₎ Structure, Magnetic Properties, and Superconductivity in the Pnictides. OB 201

V2₍₅₎ Relaxation and Dynamic Heterogeneity and Glass. OB 202

V3 (5) Electronic, Magnetic, and Magnetoelectric Excitations in Multiferroics. OB 203

V4 (5) Biological Nanostructures for Photonics and Adhesion. OB 204

V5 (5) Industrial Applications of Neutron Scattering. PB 256

V6 (5) The Impact of Large Scale Computing on Research in Physics. PB 253

V7 (5) Piconewtons and Nanometers: The Physics of Molecular Motors. PB 254

V8₍₅₎ Spots, Stripes, and Turbulence. PB 255

V9₍₀₎ Fractional QHE. A105

V10₍₂₎ Dynamics of Neural Systems. A106

V11 (1) Nonlinear Hydrodynamics of Swimming Cells. A107-A109

V12₍₀₎ Colloidal Particles and Clusters. B110-B111

V13 (1) Jamming I. B112

V14 (0) Transport Properties of Nanostructures VI: Inorganic Nanostructures and Nanomechanics. B113

V15 (1) Novel Instrumentation and Measurements for Medical and Biological Systems. B114

V16₍₀₎ Nanowires: Electrical and Thermal Properties. B115

V17 (0) Dynamics of Polymers and Complex Fluids II. B116

V18 (0) Biopolymer Molecules - Solutions, Networks, and Gels. B117

V19 $_{(1)}$ Polymer-Nanoparticle Interactions II. B118-B119

V20₍₀₎ Graphene Synthesis, Characterization and Applications. C120-122

V21₍₁₎ Graphene: Mechanical and Thermal Properties. PB 251

V22₍₀₎ Quantum Hall Effect in Graphene. PB 252

V23 (0) Solid Helium I. C125-C126

V24 (0) Dielectric, Ferroelectric, and Piezoelectric Oxides—Bulk Ferroelectrics I. D133-D134

V25 (0) Dopants and Defects in Semiconductors - Oxides, general. D135

V26 (1) Superconducting Qubits. D136

V27₍₃₎ Attosecond Science and Strong Field Chemical Physics I. D137

V28 (1) Charge Transport in Nanostructures I. C124

V29₍₀₎ Optical/Laser Devices and Applications. C123

V30 (o) Nanotechnology Applications: NEMS, CNTs, Graphene, and Nanoscale Devices. D139

V31 (2) Strongly Interacting Quantum Gases. E141

V32₍₀₎ Surface Reactions and Dynamics. E142

V33₍₀₎ Cooperative Phenomena- Experiment, Spin Dynamics and Materials. E143

V34 (1) Frustrated and Low-D Magnetism—Quantum Magnetism I. E144

V35 (1) Spins in Semiconductors—Carbon-based Systems. E145

V36₍₀₎ Spin Transport in Metals including GMR. E146

V37 (1) Complex Oxide Thin Films—Multiferroics and Tunneling. E147-E148

V38₍₀₎ Disordered Electronic Systems. F149

V39 (0) Iron Based Superconductors: Lattice Probes & Irradiation. F150

V40 (0) Superconducting Vortices: Pinning & Lattice Effects. F151

V41₍₀₎ Superconductor-Insulator Transitions. F152

V42 (0) Surfaces: Phase Transitions, Magnetic and Superconducting Properties. D138

Total Session V:42

11:15am Thursday

W1 (5) Direct Imaging of Crystal Nucleation. OB 201

W2 (5) Drop-based Microfluidics for Use with Soft-materials and Biology. OB 202

W3 (5) Adler, McGroddy, and Pake Award/Prize Session. OB 203

W4 (5) Electric Voltages Generated by Magnetization Dynamics. OB 204

W5₍₄₎ Renewable Energy Education. PB 256

W6₍₄₎ Superconducting Qubits. PB 253

W7 (5) Biological Networks. PB 254

W8 (5) Scanned Probe Microscopy of Novel Materials and Systems. PB 255

W9₍₀₎ QHE and topological insulators. A105

W10₍₀₎ Lipid Bilayers I. A106

W11 (0) Proteins: Structure, Function, and Folding. A107-A109

W12₍₀₎ Foams and Suspensions. B110-B111

W13 $_{(1)}$ Jamming II. B112

W14 (1) Optics of Nanostructures—Quantum Dots II. B113

W15₍₀₎ Surfaces, Thin Films, and Nanostructures. B114

W16 (1) Organic Electronics and Photonics: Transistors and Light Emitting Devices. B115

W17 (1) Dynamics of Polymers and Complex Fluids III. B116

W18 (1) Polymer Network Mechanics I. B117

W19 (2) Synchrotron X-ray and Neutron Techniques in Soft Matter and Biological. B118-B119

W20₍₀₎ Graphene Spetroscopy. C120-122

W21₍₁₎ Graphene: Strain. PB 251

W22₍₀₎ Graphene Nanoribbons. PB 252

W23 (0) Solid Helium II. C125-C126

W24 (0) Dielectric, Ferroelectric, and Piezoelectric Oxides—Bulk Ferroelectrics II. D133-D134

W25 (0) Semiconductor Growths and Wide Bandgap Semiconductors. D135

W26₍₀₎ Quantum Control and Resources for Quantum Computing. D136

W27 (4) Attosecond Science and Strong Field Chemical Physics II. D137

W28 (3) Charge Transport in Nanostructures II. C124

W29 $_{(1)}$ Thermoelectrics V: III-V's & Nanostructures. C123

W30 (1) High Pressure IV: Dynamics of Shock Induced Phase Transitions. D139

W31 (0) Non-equilibrium Quantum Dynamics in Atomic Systems. E141

W32 (0) Structure and Morphology: Semiconductor Surfaces. E142

W33 (0) Quantum Entanglement. E143

W34 (0) Nanomagnetism—Atomic Size Structures. E144

W35 (1) Spins in Semiconductors—DMS: III-V and Devices. E145

W36 (2) Frustrated and Low-D Magnetism—Spin Ice. E146

W37 (1) Complex Oxide Thin Films—BiFeO3 Multiferroics. E147-E148

W38 (0) Correlated Electrons: Lattice Models. F149

W39 (2) Iron Based Superconductors: Neutron Scattering and Magnetism. F150

W40 (0) Mesoscopic and Nanoscopic Superconductors. F151

W41 (1) Search for New Superconductors - Silicides, Nickelates and Cobaltates. F152

W42 $_{(0)}$ Excitation and Transport at Complex Interfaces. D138

Total Session W:42

2:30pm Thursday

X1₍₅₎ Nanostructure Studies of Strongly Correlated Materials. OB 201

X2 (5) Quantum Simulation of Strongly Correlated Systems with Cold Atoms in Optical Lattices. OB 202

X3 (5) Magnetic Monopoles and Dirac Strings in Condensed Matter. OB 203

X4₍₅₎ Dynamics of Nano-confined Polymer Films. OB 204

X5 (5) Emerging Tomographic Algorithms: From Bending Molecules to Beating Hearts. PB 256

X6₍₅₎ The Neural Dynamics of Songbirds. PB 253

 $X7_{(5)}$ Waves in Actin Dynamics. PB 254

X8₍₅₎ The 50th Anniversary of the Prediction of Superfluidity of He3. PB 255

X9₍₀₎ QHE: High Filling Factors and Weak Fields. A105

X10₍₀₎ Virology and Medical Physics. A106

X12₍₀₎ General Fluid Mechanics: Surface and Thermal Effects. B110-B111

X13 (0) Jamming III. B112

X14₍₀₎ Nanowires and Nanotubes: Devices and Applications. B113

X15₍₀₎ Structural and Electronic Properties of Metals I. B114

X16₍₁₎ Organic Electronics and Photonics: Electronic Structure and Interfaces. B115

X17₍₀₎ Charged and Ion-Containing Polymers I. B116

X18 (1) Polymer Network Mechanics II. B117

X19 (1) Polymer Colloids: Particle Interactions and Assembly. B118-B119

X20₍₁₎ Carbon Nanotubes: Optical Studies. C120-C122

X21₍₁₎ Graphene: Devices. PB 251

X22 (0) Carbon Nanotubes: Absorption and Defects. PB 252

X23₍₀₎ Many Body I. C125-C126

X24 (0) Dielectric, Ferroelectric, and Piezoelectric Oxides—Defects and Relaxors. D133-D134

X25₍₀₎ Quantum Structures. D135

X26₍₀₎ Superconducting Qubits: Coherent Phases in Superconducting Resonators. D136

X27₍₃₎ Chemical Control of the Properties of Complex Oxides I. D137

X28 (2) Charge Transport in Nanostructures III. C124

X29₍₀₎ Photonics Applications. C123

 $X30_{(0)}$ Bionanotechnology. D139

X31₍₀₎ High Pressure V. E141

X32₍₀₎ Quantum Size Effects and Interfaces. E142

X33 (2) Foundations of Quantum Theory. E143

X34 (0) Magnetic Characterization and Imaging. E144

X35₍₁₎ Spins in Semiconductors—Spin Dynamics. E145

X36 (1) Bulk Properties of Complex Oxides—Novel Systems. E146

 $X37 \ {\tiny (1)} \ \textit{Nanomagnetism-Molecules}. \ E147\text{-}E148$

X38 (0) Structural Phase Transitions. F149

X39 (1) Iron Based Superconductors: Spin Excitation. F150

X40₍₀₎ Superconductivity: Transport Properties. F151

X41 (a) Search for New Superconductors - Carbides, Borides and Organics, F152

X42₍₀₎ Physics Education: Research, Techniques, Classic Experiments, and Policy. D138

Total Session X:41

8:00am Friday

Y1 (5) Extended Quantum Criticality - The Link Between Heavy Fermions and Cuprate Superconductors?. OB 201

Y2 (5) Composite Fermions: Recent Advances in States and Excitations. OB 202

Y3 (5) Two-particle Entanglement with Single Particle Emitters. OB 203

Y4 (5) Microscopic Physics of Magnetization Damping. OB 204

Y5₍₅₎ Conductance and Coherence in Nanotubes and Nanobeams. PB 256

Y6₍₅₎ Quantum Hydrodynamics. PB 253

Y7 (5) Convergence of Physics and Life Sciences: Emerging Perspectives in Cancer. PB 254

Y8₍₅₎ Ion Interactions and Transport in Ion-Containing Polymers. PB 255

Y9 (0) Transport in Semiconductors II. A105

Y10₍₀₎ Computational Molecular Biophysics. A106

Y12₍₀₎ Disordered and Glassy Systems I. B110-B111

Y13₍₀₎ Statistical and Nonlinear Physics I. B112

Y14₍₀₎ Nanostructures and Plasmonics. B113

Y15₍₀₎ Detectors, Sensors, and Transducers. B114

Y16₍₀₎ Fullerenes and Composites. B115

Y17 (0) Organic Electronics and Photonics - Electronic, Optical, Magnetic Properties. B116

Y18₍₀₎ Elastomers and Gels. B117

Y19 (1) Polymer Colloids: Dynamics. B118-B119

Y20₍₀₎ Glassy and Amorphous Materials. C120-122

Y21₍₁₎ Graphene: Field-Effect Devices. PB 251

Y22₍₀₎ Graphene Theory. PB 252

Y23₍₀₎ Quantum Fluids and Solids. C125-C126

Y24 (0) Insulators: pt. Defects, Dielectrics, and Scintillators/Phosphors. D133-D134

Y25 (0) Nanoparticles. D135

Y26₍₀₎ Superconducting Qubits: Decoherence and Noise. D136

Y27₍₃₎ Chemical Control of the Properties of Complex Oxides II. D137

Y28 (0) Chemical Dynamics. C124

Y29 (0) Thermoelectrics VI: Oxides, Measurements, Devices. C123

Y30₍₀₎ Disordered Magnetic Materials. D139

Y31 (0) Ferromagnetism and Spin-imbalances in Quantum Gases. E141

 $Y32_{(0)}$ Novel Instrumentation & Techniques in Surface Science. E142

Y33₍₀₎ Novel Probes of Quantum Gases and Quantum Measurement / Quantum Information. E143

Y34 (0) Frustrated and Low-D Magnetism—Quantum Magnetism II. E144

Y35 (1) Spins in Semiconductors—Qubits and Quantum Wires. E145

Y36 (1) Bulk Properties of Complex Oxides—General Multiferroics. E146

Y37 (1) Nanomagnetism—Nanoparticles I. E147-E148

Y38 (0) Nanostructures of Correlated Materials. F149

Y39 (1) Iron Based Superconductors: Spectroscopy I. F150

Y40 (1) Iron Based Superconductors: Magnetism and Transport. F151

Y41 (0) Strongly Correlated Systems - Theory, F152

Y42₍₀₎ Superconductivity: Thermodynamic, Mechanical and Structural Properties. D138

Total Session Y:41

11:15am Friday

- $Z1_{(4)}$ Coherent Optical Manipulation of Electron and Nuclear Spin in Artificial Atomic and Molecular Systems in Solids. OB 201
- Z2 (5) Plasmonic Nanogaps: From Single Molecule Sensing to Light Manipulation and Beyond. OB 202
- Z3₍₅₎ Response of Magnetism to Electric Fields and Light. OB 203
- Z4₍₅₎ Plasmonics Applications. OB 204
- Z9₍₀₎ QHE: Quantum Computing. A105
- Z10₍₀₎ Physics of Physiological Systems. A106
- Z11 (0) Lipid Bilayers II. A107-A109
- Z12₍₀₎ Disordered and Glassy Systems II. B110-B111
- Z13₍₀₎ Statistical and Nonlinear Physics II. B112
- Z14₍₀₎ Graphene: Adsorbates and Defects. B113
- Z15₍₀₎ Structural and Electronic Properties of Metals II. B114
- Z16 (0) Organic Electronics and Photonics: Fundamentals. B115
- Z17₍₀₎ Charged and Ion-Containing Polymers II. B116
- Z18 (0) New Experimental, Theoretical, and Computational Methods in Polymer and Soft Matter Physics. B117
- Z19₍₁₎ Polymer Brushes. B118-B119
- Z20₍₀₎ Carbon Nanotubes: Fundamentals and Applications. C120-122
- Z21 (0) Graphene: Growth. PB 251
- Z22₍₀₎ Graphene Optical Properties and Imaging. PB 252
- Z24 $_{\rm (0)}$ Oxides and other Insulators. D133-D134
- Z25₍₀₎ Theoretical Methods and Applications. D135
- Z26 $_{\rm (0)}\,\rm Superconducting$ Qubits: New States and Effects. D136
- Z27₍₀₎ Surfaces. D137
- Z28 (0) Clusters. C124
- Z29₍₀₎ A Potpourri of AMO and Quantum Information. C123
- Z30₍₀₎ Optoelectronic Devices and Applications. D139
- Z31 $_{(0)}$ Quantum Optics and Quantum Many-body Physics in Optical Lattices. E141
- Z32₍₀₎ Interactions and Thin Films. E142
- Z33 (0) Open Quantum Systems and Decoherence. E143
- Z34 (0) Frustrated and Low-D Magnetism—Quantum Magnetism III. E144
- Z35 $_{\rm (1)}$ Spins in Semiconductors—DMS: II-VI and Group IV. E145
- Z36 (0) Bulk Properties of Complex Oxides—4d and 5d Systems. E146
- Z37 $_{(1)}$ Nanomagnetism—Nanoparticles II. E147-E148
- Z39 (1) Iron Based Superconductors: Spectroscopy II. F150
- Z40 (0) Superconductivity: Spectroscopy (Neutron, Optical and others). F151

Total Session Z:34