

March Meeting 2012

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[P40. Protein Fluctuations and Conformation Changes](#)
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[P42. Focus Session: Evolutionary Systems Biology II - From molecules to cells](#)
[P43. Invited Session: High Content Biophysical Data for Dynamic Studies in Cancer](#)
[P44. Focus Session: Block Copolymer Micelles and Polymersomes](#)
[P45. Surfaces, Interfaces, and Polymeric Thin Films - Surface Instabilities](#)
[P46. Invited Session: DNA-Programmable Particle Assembly](#)
[P47. Biopolymers: Molecules, Solutions, Networks, and Gels](#)

[P48. Focus Session: Crystallization in Single-, Multicomponent, and Hybrid Systems II](#)
[P49. Focus Session: Organic Electronics and Photonics - Interfaces and Contacts](#)
[P50. Focus Session: Dynamics of Polymers: Phenomena due to Confinement; Glass Transition](#)
[P51. Colloids III: Shear and Hydrodynamics](#)
[P52. Focus Session: Extreme Mechanics - Structures for Form and Function](#)
[P53. Disordered Systems: Packing](#)
[P54. Superconductivity: Thermodynamics and Phases](#)

[Session Q](#)

[Q2. Invited Session: Manipulating Spin Waves](#)
[Q3. Invited Session: Recent Advances in Prictide Superconductors](#)
[Q4. Focus Session: Many-body Quantum Phases in Cold Atom Systems](#)
[Q5. Nonequilibrium and Gauge/Gravity Duality](#)
[Q6. Carbon Nanotubes: Electronic and Thermal Properties](#)
[Q7. Focus Session: Computational Design of Materials: Graphene - Strain, defect and interface engineering](#)
[Q8. Focus Session: Spin Liquids II](#)
[Q9. Focus Session: Complex Bulk Oxide: Doped and Undoped Manganites](#)
[Q10. Invited Session: Rare Fluctuation Effects in Strongly Disordered Systems](#)
[Q11. Focus Session: Graphene Structure, Stacking, Interactions: Infrared and Terahertz Spectroscopy](#)
[Q12. Focus Session: Graphene: Growth, Mechanical Exfoliation, and Properties - SiC and Growth Kinetics](#)
[Q13. Focus Session: Magnetic Nanostructures-Nanoparticle Synthesis and Magnetism](#)
[Q14. Focus Session: Spins in Semiconductors - Spin Dependent Transport](#)
[Q16. Heavy Fermions - 1-1-5 Systems](#)
[Q17. Focus Session: Nanostructures and Metamaterials, Growth, Structure, and Characterization -- Improved Materials and Applications I](#)

[Applications I](#)

[Q18. Focus Session: Interfaces in Complex Oxides - Electronic, Magnetic and Optical Properties](#)
[Q19. Invited Session: The Scientific Legacy of Edward Purcell \(1912-2012\)](#)
[Q20. Invited Session: Robust Energy Storage with Engineered Si](#)
[Q21. Novel Superconductivity in New and Low Dimensional Materials](#)
[Q22. Focus Session: Fe-based Superconductivity - Doped and Undoped BaFe₂As₂](#)
[Q23. Superconductivity Theory III: Mainly Cuprates](#)
[Q24. Fractional Quantum Hall Effect II](#)
[Q25. Focus Session: Simulation of Matter at Extreme Conditions - Phase Transitions](#)
[Q26. Focus Session: Computational Frontiers in Quantum Spin Systems I](#)
[Q27. Invited Session: DCMP Prize Session: Buckley, Isakson, MGM](#)
[Q28. Applications of Semiconductors, Dielectrics, Complex Oxides](#)
[Q29. Focus Session: Topologically Protected Qubits II](#)
[Q30. Focus Session: Superconducting Qubits: Architecture, Tunable, and Static Coupling](#)
[Q31. Focus Session: Topological Insulators - Edge States](#)
[Q32. Focus Session: Dielectric, Ferroelectric, and Piezoelectric Oxides - Multiferroics and Magnetoelectrics](#)
[Q33. Focus Session: X-ray and Neutron Instruments and Measurement Science](#)
[Q34. Focus Session: Nano IV: Nanocatalysis](#)
[Q35. Focus Session: DFT VI: New Functional Developments](#)
[Q36. Water and Ice](#)
[Q37. Focus Session: Students, Physics and Innovation](#)
[Q39. Focus Session: Materials and Functional Structures for Biological Interfaces - Micro and Nanofluidics](#)
[Q40. Focus Session: Systems Biology and Biochemical Networks III](#)
[Q41. Biofluids](#)
[Q42. Focus Session: Stochastic Population Dynamics II - Games and Spatial Dynamics](#)
[Q43. Invited Session: Techniques to Study Dynamic Cellular Processes One Molecule at a Time \(Including Delbruck Award Lecture\)](#)
[Q44. Focus Session: Interparticle Interactions in Polymer Nanocomposites - Transport and Dynamics](#)
[Q45. Elastomers and Gels](#)
[Q46. Invited Session: Quantum Information Processing in Diamond](#)
[Q47. Focus Session: DNA-Coated Colloid Particles](#)
[Q48. Polymer Blends and Crystallization](#)
[Q49. Focus Session: Organic Electronics and Photonics - Photophysics and Excited State Dynamics](#)
[Q50. Focus Session: Dynamics of Polymers: Phenomena due to Confinement II](#)
[Q51. Gels, Complex Fluids and Vesicles](#)
[Q52. Focus Session: Extreme Mechanics - Shells & Snapping](#)
[Q53. Packing, Self-Assembly, and Granular Memory](#)
[Q54. Superconductivity: Mesoscopic and Nanometer Scale](#)

[Session S](#)

[S1. Poster Session III \(1:00-4:00PM\)](#)

[Session T](#)

[T1. Hybrid Systems, Optomechanics and Macroscopic Systems at the Quantum Limit II](#)
[T2. Invited Session: PIRE in Condensed Matter](#)
[T4. Vortices, Rotation, and Synthetic Gauge Fields](#)
[T5. Assembly of Atoms and Molecules in Adsorption Systems](#)
[T6. Focus Session: Graphene Devices - Spin, Charge, and Superconductivity](#)
[T7. Focus Session: Computational Design of Materials: Electronic Structure Methods for Materials - Faster and More Accurate](#)
[T8. Focus Session: Helical Phases and Skyrmions](#)
[T9. Focus Session: Magnetic Oxide Thin Films And Heterostructures - Interactions at Interfaces and in Superlattices](#)
[T10. Invited Session: Earth-Abundant Materials for Critical Technologies](#)
[T11. Focus Session: Graphene Structure, Stacking, Interactions: Twisted Layers](#)
[T12. Focus Session: Graphene: Growth, Mechanical Exfoliation, and Properties - CVD on Metals](#)
[T13. Focus Session: Low-Dimensional and Molecular Magnetism - Molecular Ferromagnetism and 2D Magnetism](#)
[T14. Focus Session: Spins in Semiconductors - Spins and Edge States](#)
[T15. Focus Session: Magnetic Nanostructures-Exchange Bias and Exchange-Coupled Systems](#)
[T16. Kondo Lattice Theory](#)

[T17. Focus Session: Electron, Ion, and Exciton Transport in Nanostructures - Quantum Transport II](#)
[T18. Focus Session: Interfaces in Complex Oxides - Superconductivity and Magnetism at Interfaces](#)
[T19. Kavli Foundation Special Session: Emergent Physics at the Mesoscale](#)
[T20. Invited Session: Advanced Characterization of Transistor Gate Stacks and Interfaces](#)
[T21. Magnetic Ordering and Dynamics in Cuprates](#)
[T22. Focus Session: Fe-based Superconductivity - Properties of 122 phases](#)
[T23. Actinides and Transport Magnetism in Metals](#)
[T24. Fractional Quantum Hall Effect III](#)
[T25. High Pressure: Theory](#)
[T26. Focus Session: Computational Frontiers in Quantum Spin Systems II](#)
[T28. Semiconductors](#)
[T29. Focus Session: Semiconductor Qubits - Coherent Control, Decoherence, and Relaxation](#)
[T30. Quantum Algorithms](#)
[T31. Focus Session: Topological Insulators: Synthesis and Characterization - Spin Transport and Superconductivity](#)
[T32. Focus Session: Dielectric, Ferroelectric, and Piezoelectric Oxides - Manganites](#)
[T35. Focus Session: Plyler Award Symposium](#)
[T37. Physics Education Research and Resources](#)
[T40. Focus Session: Cytoskeleton and Biomechanics - Forced Dynamics](#)
[T41. Swimming, Motility and Locomotion](#)
[T42. Focus Session: Evolutionary Systems Biology III - Evolutionary Games](#)
[T44. Focus Session: Interparticle Interactions in Polymer Nanocomposites - Grafted Chains](#)
[T45. Polymeric Glasses](#)
[T46. Invited Session: Keithley Award Session: Photoacoustic and Photothermal Measurement Science](#)
[T47. Focus Session: Heterogeneous Colloids I](#)
[T48. Focus Session: Advanced Optical Probes of Soft Matter - Microrheology, Microbiography](#)
[T49. Focus Session: Organic Electronics and Photonics: Structure - Property Correlations](#)
[T50. Focus Session: Phase Behavior and Structure in Copolymers](#)
[T52. Non-equilibrium Systems, Especially using Fluctuation Theorems and Fluctuation-Dissipation Relations](#)
[T53. Focus Session: Wave Propagation in Strongly Scattering Media](#)
[T54. Superconductivity: Mostly Spectroscopy and Pairing](#)

[Session U](#)

[U18. Meet the NSF-DMR Program Director and Learn About Funding Opportunities at NSF](#)
[U20. Town Hall Meeting: Mesoscopic Materials and Chemistry](#)
[U60. "Trends" in the APS Publication Physics](#)

[Session V](#)

[V1. Focus Session: Advances in Scanned Probe Microscopy III: SPM of Single Atoms & Molecules](#)
[V2. Invited Session: Spin Caloritronics of Magnetic Structures and Devices](#)
[V3. Invited Session: Spin Fluctuations and Cooper Pairing in Unconventional Superconductors](#)
[V4. Bosons and Fermions in Optical Lattices](#)
[V5. Surface Electronic & Lattice Properties: Structure, Surface States, & Adsorption](#)
[V6. Focus Session: Carbon Nanotube Optics I: Spectroscopy and Excitons](#)
[V7. Focus Session: Computational Design of Materials - Engineering of Electronic Structure Materials](#)
[V8. Focus Session: Frustrated Magnetism - Kagome II](#)
[V9. Focus Session: Magnetic Oxide Thin Films And Heterostructures - Transport Properties](#)
[V10. Invited Session: Quantum Entanglement in Many-Body Systems](#)
[V11. Focus Session: Graphene Structure, Stacking, Interactions: Edges and Grain Boundaries](#)
[V12. Graphene: Optical Properties and Responses](#)
[V13. Focus Session: Magnetic Nanostructures-Domain Walls](#)
[V14. Focus Session: Spins in Carbon - Spins and Magnetism in Carbon](#)
[V16. Heavy Fermions- 1-1-5 Systems and Others](#)
[V17. Focus Session: Electron, Ion, and Exciton Transport in Nanostructures - Junctions](#)
[V18. Focus Session: Interfaces in Complex Oxides - Interface and Surface Conductivity in SrTiO₃](#)
[V19. Invited Session: Holography and Strongly Correlated Electron Matter](#)
[V20. Invited Session: High k Dielectrics for High Carrier Mobility Channel Applications](#)
[V21. Superconductivity: Mostly Cuprates](#)
[V22. Focus Session: Fe-based Superconductors - Magnetism and Anisotropy](#)
[V23. Superconductivity: Mostly Transport](#)
[V24. Low-Dimensional Semiconductors](#)
[V25. High Pressure: Experiment](#)
[V26. Focus Session: Computational Frontiers in Quantum Spin Systems III](#)
[V27. Invited Session: Flexible and Rolled Up Semiconductor Nanomembranes](#)
[V28. Semiconductor Defects and Doping](#)
[V29. Focus Session: Superconducting Qubits: Epitaxial Junctions and Two-Level Systems](#)
[V30. Focus Session: Semiconductor Qubits - Measurement](#)
[V31. Focus Session: Topological Insulators: Synthesis & Characterization - ARPES](#)
[V32. Focus Session: Dielectric, Ferroelectric, and Piezoelectric Oxides - Interfaces, Layered Materials, and Growth](#)
[V34. Focus Session: Impact of Ultrafast Lasers V: Applications II](#)
[V35. Focus Session: DFT VII: Time-Dependent Processes I: Driven Systems](#)
[V36. General Chemical Physics](#)
[V37. Topological Insulators: Magnetoelectric Effect, Control, and Dynamics](#)
[V40. Focus Session: Single Molecule Biological Physics - Proteins](#)
[V41. Focus Session: Physics of Proteins I: Dynamics and Function](#)
[V42. Focus Session: Systems Biology - Stochastic Gene Expression](#)
[V43. Invited Session: Entrepreneurship - The Quest for Start-Up Success Based on Research Advances](#)
[V44. Focus Session: Interparticle Interactions in Polymer Nanocomposites - Surface Interactions](#)
[V45. Soft Matter Physics of Heterogeneous Membranes - Experiments](#)
[V46. Invited Session: Active Matter and Dynamical Systems](#)
[V47. Focus Session: Heterogeneous Colloids II](#)
[V48. Focus Session: Advanced Optical Probes of Soft Matter - Forces, Imaging, Excitons](#)

[V49. Focus Session: Organic Electronics and Photonics - Solar Cells and Light Emitting Devices](#)
[V50. Structure and Properties of Copolymers](#)
[V52. Focus Session: Extreme Mechanics - Biological Systems and Structures](#)
[V53. Wet and Cohesive Granular Materials](#)
[V54. Superconductivity: Magnetic Field Effects Including Vortex Related Phenomena \(Theory\)](#)

[Session W](#)

[W1. Photonic Systems and Entanglement Generation](#)
[W2. Invited Session: Instrumentation and Measurement Science for Energy Research: PV and Batteries](#)
[W3. Invited Session: Fractional Topological Insulators](#)
[W4. Strongly Interacting Fermi Gases](#)
[W5. Thin Film Growth and Processing](#)
[W6. Focus Session: Carbon Nanotube Synthesis, Structure and Defects](#)
[W7. Focus Session: Graphene Devices - Mechanical Effects](#)
[W8. Focus Session: Frustrated Magnetism - Pyrochlore lattice](#)
[W9. Focus Session: Complex Bulk Oxides: Multiferroics](#)
[W10. Invited Session: Novel Bose-Einstein Condensates: Photons, Excitons, Magnons, Rydberg Atoms, and Polar Molecules](#)
[W11. Focus Session: Graphene Structure, Stacking, Interactions: Local Probes and Microscopy](#)
[W12. Focus Session: Graphene: Growth, Mechanical Exfoliation, and Properties - Exfoliation and Doping](#)
[W13. Focus Session: Low-Dimensional and Molecular Magnetism - Metallorganics and Spincrossover Molecular Magnets](#)
[W14. Focus Session: Spins in Semiconductors - Ferromagnetism and Spin Dynamics in Semiconductors](#)
[W15. Focus Session: Spins in Metals - Domain Wall, Vortex, Magnonic Based Devices](#)
[W16. Quantum Criticality](#)
[W17. Optics of Semiconductor Nanowires](#)
[W18. Focus Session: Interfaces in Complex Oxides - Devices and Nanostructures](#)
[W19. Invited Session: Spin Coupling and Kondo Screening in Individual Magnetic Spins](#)
[W20. Invited Session: Nuclear Power, One Year After Fukushima](#)
[W21. Focus Session: Search for New Superconductors- Electron-Phonon Coupling](#)
[W22. Focus Session: Fe-based Superconductivity - Magnetism in \$AxFe\(1-y\)Se_2\$](#)
[W23. Focus Session: Fe-based Superconductors - AFeAs and RFeAsO Families](#)
[W24. Integer Quantum Hall Effect](#)
[W25. Focus Session: Modeling of Rare Events: Methods and Applications I](#)
[W26. Focus Session: What is Computational Physics? New Technologies and Their Application](#)
[W27. Invited Session: Electrons, Spins, and Collective Modes in Nanofilms](#)
[W29. Focus Session: Superconducting Qubits: Resonators and Loss Mechanisms](#)
[W30. Quantum Entanglement](#)
[W31. Focus Session: Topological Insulators: Synthesis & Characterization - Quantum Transport & Nanostructures](#)
[W32. Focus Session: Dielectric, Ferroelectric, and Piezoelectric Oxides - Bandgaps, Surfaces, Oxides on Semiconductors](#)
[W33. Physics of Hydrogen Production, Storage, Delivery](#)
[W34. Focus Session: Nano V: Nanoscale Materials and Properties II](#)
[W35. Focus Session: DFT VIII: Time-Dependent Processes II: Excitations](#)
[W37. Topological Insulators: Fractionalization](#)
[W39. Focus Session: Materials and Functional Structures for Biological Interfaces: Cells](#)
[W40. Focus Session: Single Molecule Biological Physics - Nucleic acids and Proteins](#)
[W41. Focus Session: Quantum Coherence in Biological Systems](#)
[W42. Focus Session: The Physics of Genome Folding I: Fractal Globules and Condensed Polymer States](#)
[W43. Invited Session: Physical Mechanisms of Collective Microbial Dynamics](#)
[W44. Focus Session: Interparticle Interactions in Polymer Nanocomposites - Mechanical, Electrical, and Optical Properties](#)
[W45. Focus Session: Soft Matter Physics of Heterogeneous Membranes - Theory and Simulation](#)
[W46. Invited Session: Silicon Spin Qubits: Relaxation and Decoherence](#)
[W47. Focus Session: Polymers for Energy Storage and Conversion - Fundamentals of Ion Transport](#)
[W48. New Experimental, Theoretical, and Computational Methods in Polymer and Soft Matter Physics](#)
[W49. Focus Session: Organic Electronics and Photonics - Thin Film Transistors](#)
[W50. Focus Session: Micro and Nano Fluidics I: Devices and Applications](#)
[W52. Focus Session: Extreme Mechanics - Fluid-Structure Interactions and Swelling](#)
[W53. Focus Session: Common Features of Soft Materials: Polymers, Colloids and Granular Media I](#)

[Session X](#)

[X1. Focus Session: Advances in Scanned Probe Microscopy IV: New Instrumentation & Techniques](#)
[X2. Invited Session: History of Metrology and Today's Frontiers of Measurement](#)
[X3. Invited Session: Full Counting Statistics, Fluctuation Theorems, and Many-Body Entanglement](#)
[X4. Focus Session: Quantum Quench Dynamics in Cold Atom Systems](#)
[X5. Structure and Formation of Oxide Surfaces and Interfaces](#)
[X6. Carbon Nanotube Optics II: Absorption and Raman Spectroscopy](#)
[X7. Electronic, Structural and Chemical Properties of Non-Carbon Nanotubes and Nanowires](#)
[X8. Focus Session: Frustrated Magnetism - Theory](#)
[X9. Focus Session: Complex Bulk Oxides: Magnetic Phase Transitions](#)
[X10. Invited Session: Thermal Properties and Electron-Phonon Coupling from First Principles](#)
[X11. Focus Session: Graphene Structure, Stacking, Interactions: Twisting, Stretching, Folding, Wrinkling](#)
[X12. Focus Session: Graphene: Growth, Mechanical Exfoliation, and Properties - Morphology and Interactions](#)
[X13. Focus Session: Magnetic Nanostructures-Hard Magnetic Materials and Magnetocaloric Materials](#)
[X14. Focus Session: Spins in Semiconductors - Spin-Orbit Interaction and Relaxation in Si and Ge](#)
[X15. Focus Session: Spin and Dynamics in Metal, Resonance Phenomena II: FMR in Magnetic Nanostructures](#)
[X16. Manganites: Perovskite and Bilayer](#)
[X17. Focus Session: Nanostructures and Metamaterials, Growth, Structure, and Characterization -- Improved Materials and Applications II](#)
[X18. Growth and Properties of Nanoparticles and Nanowires](#)
[X19. Invited Session: Two Dimensional Electron Systems at Oxide Interfaces](#)
[X20. Invited Session: Physics of Color Reflective Displays](#)
[X21. Fluctuation Phenomena \(noise, nonequilibrium effects, localization effects\)](#)
[X22. Focus Session: Fe-based Superconductors - Exchange Coupling Theory](#)

[X23. Magnetic Field Effects: Experimental II](#)
[X24. Electronic Structure: Quantum Monte Carlo](#)
[X25. Focus Session: Modeling of Rare Events: Methods and Applications II](#)
[X26. Focus Session: Non-Adiabatic Dynamics in Irradiated Materials](#)
[X27. Invited Session: Physics for Everyone: Innovative Materials for Energy](#)
[X29. Focus Session: Semiconductor Qubits - Managing or Eliminating Nuclei](#)
[X30. Focus Session: Quantum Information for Quantum Foundations - Foundational Experiments and Experimental Proposals](#)
[X31. Focus Session: Topological Insulators: Synthesis and Characterization - Scanning Tunneling Spectroscopy](#)
[X32. Focus Session: Dielectric, Ferroelectric, and Piezoelectric Oxides - Elastic and Optical Properties](#)
[X33. Focus Session: X-ray, Gamma Ray, and Electron Diffraction](#)
[X34. Focus Session: Nano VI: Junctions and Transport](#)
[X39. Focus Session: Materials and Functional Structures for Biological Interfaces - Nanoscale Materials](#)
[X40. Focus Session: Single Molecule Biological Physics - Nucleic Acids](#)
[X41. Focus Session: Physics of Proteins II: Folding and Structure](#)
[X42. Focus Session: The Physics of Genome Folding II: Chromosomes and Nucleosomes](#)
[X43. Invited Session: Bacterial Swimming and Chemotaxis](#)
[X44. Focus Session: Directed Assembly of Hybrid Materials - Nanoparticles in Micelles](#)
[X45. Focus Session: Soft Matter Physics of Drops, Bubbles, Foams, and Emulsions - Droplet spreading, colliding, wetting](#)
[X46. Invited Session: Deformation and Fracture of Soft Materials](#)
[X47. Focus Session: Polymers for Energy Storage and Conversion - Nanostructures and Phase Separated Morphologies](#)
[X48. Focus Session: Statistical Physics of Active Systems Away From Detailed Balance: Cytoskeleton, Flagella, and All That](#)
[X49. Focus Session: Organic Electronics and Photonics - Polymer Dielectrics and Charge Transport](#)
[X50. Focus Session: Micro and Nano Fluidics II: Structured or Active Surfaces and Electrotransport](#)
[X52. Focus Session: Extreme Mechanics - Fracture, Friction, and Frequencies](#)
[X53. Focus Session: Common Features of Soft Materials: Polymers, Colloids and Granular Media II](#)

[Session Y](#)

[Y1. Measurement Science from Optics through Thermodynamics](#)
[Y2. Invited Session: Magnetic Materials and Magnetism Research for Energy Applications](#)
[Y3. Invited Session: Competing Phases and Quantum Criticality in Strongly Correlated Systems](#)
[Y4. Cold Quantum Gases in Reduced Dimensions](#)
[Y5. Optical Properties and Excitations in Semiconductor Quantum Dots](#)
[Y6. Carbon Nanotubes: Devices, Capacitors and Other Applications](#)
[Y7. Glassy Metallic, Semiconductor, Oxide and Chalcogenide Systems](#)
[Y8. Focus Session: Frustrated Magnetism - Experiment](#)
[Y9. Focus Session: Complex Bulk Oxide: Orbital Physics](#)
[Y10. Invited Session: Modeling & Simulation of the Impact of Space Radiation on Electronic Systems \(Avionic and Astronautic\)](#)
[Y11. Focus Session: Graphene Devices - Fabrication](#)
[Y12. Graphene: Electronic Structure and Interactions - STM and Nanoribbons](#)
[Y13. Focus Session: Low-Dimensional and Molecular Magnetism - Nanomagnetism on Surfaces - Magnetic Adatoms and Clusters](#)
[Y14. Focus Session: Spins in Carbon - Organic Spintronics](#)
[Y15. Focus Session: Spins in Metals: Spin Torque Theory, Spin Dependent Transport](#)
[Y16. Strongly Correlated Electrons - Experiment and Theory](#)
[Y17. Nanostructures and Interfaces: Electrons, Phonons, and Plasmons](#)
[Y18. Focus Session: Interfaces in Complex Oxides - Functional Interfaces](#)
[Y19. Invited Session: Novel Mechanisms of Multiferrocity](#)
[Y20. Invited Session: New Anisotropy-Driven Phenomena in Colloidal Suspensions](#)
[Y21. Bi-based Cuprates -- Experiment](#)
[Y22. Focus Session: Fe-based Superconductors - Crystal Growth and New Materials](#)
[Y23. Superconductor-Insulator Transitions](#)
[Y24. Quantum Many-Particle Systems: DMFT & DMRG](#)
[Y25. Focus Session: Multiscale Modeling](#)
[Y26. General Theory / Computational Physics I](#)
[Y27. Invited Session: Topological Phases in Magnets](#)
[Y29. Focus Session: Quantum Optics with Superconducting Circuits: Nonlinearity and Itinerant Microwave Photons](#)
[Y30. Quantum Computing, Quantum Algorithms, and Quantum Simulation](#)
[Y31. Focus Session: Topological Insulators: Synthesis & Characterization - Optical & THz Spectroscopy](#)
[Y32. Topological Insulators: General Theory](#)
[Y40. Focus Session: Cytoskeleton and Biomechanics - Role of Motors \(Including DBIO Best Thesis Award Lecture\)](#)
[Y41. Focus Session: Physics of Cancer III -- Imaging](#)
[Y42. Physics of Bacteria and Viruses](#)
[Y43. Invited Session: Physical Organizing Principles for Amyloid Matter: Prediction, Structure, Function](#)
[Y44. Focus Session: Directed Assembly of Hybrid Materials - Particle Organization and Arrays](#)
[Y45. Focus Session: Soft Matter Physics of Drops, Bubbles, Foams and Emulsions - Bubbles, Films, Foams](#)
[Y47. Soft Matter Physics of Biological Systems](#)
[Y48. Focus Session: Statistical Physics of Active Systems Away From Detailed Balance: Swimmers and All That](#)
[Y49. Focus Session: Organic Electronics and Photonics - Small Molecules and General Advances](#)
[Y50. Focus Session: Micro and Nano Fluidics III: Microtransport and Thermophysical Properties](#)
[Y52. Focus Session: Spin Glasses: Advances, Algorithms, and Applications](#)
[Y53. Nonlinear Dynamics of Coupled Systems](#)

[Session Z](#)

[Z1. General Atomic, Molecular and Optical Physics](#)
[Z2. Invited Session: Active Responses of Biological Materials to Mechanical Stress](#)
[Z3. Invited Session: Frontiers of Non-Equilibrium Transport Theories](#)
[Z4. Disorder and Pairing in Ultracold Systems](#)
[Z5. Synthesis, Transport, and Devices Based on Artificially Structured Materials](#)
[Z6. Focus Session: Carbon Nanotube Electronics, Properties, and Devices](#)
[Z7. Transport and Optical Properties of Non-Carbon Nanotubes and Nanowires](#)
[Z8. Focus Session: Frustrated Magnetism - Magnetic Insulators](#)
[Z9. Focus Session: Complex Bulk Oxide: General Properties](#)

[Z11. Focus Session: Graphene Devices - Hybrid Structures](#)
[Z12. Graphene: Electronic Structure and Interactions - Spectroscopy](#)
[Z13. Focus Session: Magnetic Nanostructures-Nanoparticles and Granular Systems](#)
[Z16. Disordered and other Strongly Correlated Systems](#)
[Z17. 2D Crystals: Beyond Graphene](#)
[Z18. Enhanced Optical Properties Using Plasmonics, Metamaterials, and Nanoparticles](#)
[Z19. Invited Session: Non-Abelian States in the 1st Excited Landau Level: Experimental Status and Theoretical Outlook](#)
[Z20. Invited Session: Optical Processes in Nitrides and Other Wide-Band-Gap Semiconductors](#)
[Z22. Focus Session: Fe-based Superconductors - Orbital Order and Chalcogenides](#)
[Z23. Superconductivity: Magnetic Field & Vortex Related \(Experimental\)](#)
[Z26. General Theory / Computational Physics II](#)
[Z27. Invited Session: Interaction Driven Broken Symmetry States in Bilayer Graphene](#)
[Z29. Focus Session: Superconducting Qubits: Noise and Anomalous Temperature](#)
[Z30. Focus Session: Quantum Information for Quantum Foundations - Quantumness versus Classicality](#)
[Z31. Topological Insulators: Junctions and Interfaces](#)
[Z32. Topological Insulators: General Theory II](#)
[Z40. Biomechanics - Organismic Motion](#)
[Z41. Focus Session: Non-Covalent Protein Interactions](#)
[Z42. Focus Session: Physics of Biomaterials: Mechanics, Dynamics, and Transport](#)
[Z43. Invited Session: Applications of Jamming](#)
[Z46. Invited Session: Self-Assembly of Proteins: From Capsids to Crystals](#)
[Z47. Self-Assembly and Polymer Composites](#)
[Z48. Focus Session: Statistical Physics of Active Systems Away from Detailed Balance: Motors, Swimmers and All That](#)
[Z50. Focus Session: Micro and Nano Fluidics IV: Emulsions and Complex Fluids](#)