| Name | MA/MS Date | MA/MS Thesis | Ph.D. Date | Dissertation |
|-------------------------|------------|---|------------|--|
| Dr. Shah Bahauddin | 2017 | Understanding the energy balance of transition region structures observed by interface region imaging spectrometer | 2019 | Understanding the energy balance of transition region structures observed by IRIS in non-equilibrium emission |
| Dr. Will Barnes | 2015 | Hot non-flaring plasma in active regions: impact of electron-ion coupling on emission from impulsively heated coronal loops | 2019 | Diagnosing the frequency of energy deposition in the magnetically-closed Corona |
| Dr. James Brandenburg | 2015 | Study of the Identified π+/-, K+/-, p, and anti-p Spectra in Au+Au Collisions at √sNN = 14.5 GeV at STAR | 2019 | A systematic measurement of $\mu + \mu$ – production in $p+p$ and $p+Au$ collisions at \sqrt{sNN} = GeV with the STAR detector |
| Dr. Sitti Buathong | 2015 | Studies of Intermediates Created via Dissociative Electron Attachment through Heavy-Rydberg Ion-Pair State Formation in Rydberg Atom Collisions | 2019 | A study of heavy-rydberg ion-pair formation through Rydberg- |
| Dr. Benjamin Cerjan | 2017 | Aluminum Antennas for Internally Calibrated Surface Enhanced Infrared Absorption Spectroscopy | 2019 | Aluminum Plasmonics for detection and spectroscopy |
| Dr. Justin Chen | 2014 | Remarkable Chemical Tuning of the Electrical Transport in Ti(1-x)Pt(x)Se(2-y) | 2019 | Data Driven Modeling of Proteins |
| Dr. Thomas Langin | 2016 | Universality in the Equilibration of Quenched Yukawa One Component Plasmas | 2019 | Laser Cooling of lons in a neutral plasma |
| Dr. Jingqiang Li | 2016 | NA | 2019 | Forces unveil physics in biological systems via atomic force microscopy: from single molecules to single cells |
| Dr. Vaideesh Loganathan | 2017 | Large Magnetic Anisotropy in Fe_{0.25} Ta S_2 | 2019 | First principles approaches to strongly correlated systems |
| Dr. Weiyi Wang | 2017 | Intertwined superconducting and nematic orders in NaFe1-xNixAs without antiferromagnetic order | 2019 | Neutron Scattering studies of doped iron pnticides |

| Name | MA/MS Date | MA/MS Thesis | Ph.D. Date | Dissertation |
|------------------------|------------|---|------------|---|
| | | | | |
| Dr. Li Yang | 2017 | Bose-Fermi Mapping and Multi- Branch Spin Chain Model for Strongly Interacting Quantum Gases in One-Dimension: Dynamics and Collective Excitations | 2019 | Strongly interacting one- dimensional spinor quantum gases |
| Dr. Tsung-Lin Yang | 2014 | 3D Optical Lattice System for Ultra-Cold Lithium 6 | 2019 | Dynamical response to an interacting 1-dimensional Fermi gas |
| Dr. Jie Zhang | 2015 | Microwave Spectroscopy on Two Dimensional Electron Gas | 2019 | Microwave spectroscopy of two dimensional eletron/hole gases |
| Dr. Runmin Zhang | 2017 | Identification and Analysis of Plasmonic Behaviors in Ultrasmall Nanospheres | 2019 | A first principles approach to understand plasmonic phenomena in physical systems |
| Dr. Yunsong Zhang | 2017 | Physical Models of Cell Migration and Related Problems | 2019 | Physical models of cell migration and cell-ECM interaction |
| Dr. Joseph Barchas | 2014 | Electrostatic Energy Exchange in Shock Acceleration | 2018 | Radiative transfer of polarized x- rays: magnetized Thomson scattering in neutron stars. |
| Dr. Arpan Bhowmik | 2015 | Chemotaxis to Excitable Wavins In Dictyostellium Discoideum | 2018 | Inter-cellular communication and pattern formation: an investigation of cellular signaling and cooperation |
| Dr. Joseph Butterworth | NA | NA | 2018 | Electron-positron pair production in Au+Au collisions at a center-of-mass energy of 27 GeV per nucleon pair as part of the beam energy scan program at STAR |
| Dr. Zhenyu Chen | 2014 | Two-Particle Correlations of Strange Hadrons in pPb and PbPb Collisons at LHC Energies | 2018 | Collective long-range correlations in proton-proton and proton-nucleus collisions at the LHC with the CMS experiment |
| Dr. Nathanial Eddy | NA | NA | 2018 | On the role of conformational flexibility in viral fusion mechanisms – fusion by disorder |
| Dr. Yu Li | 2017 | Orbital selective spin excitations and their impact on superconductivity of Life-xCoxAs | 2018 | Interplay of multiple degrees of freedom and various emergent phenomenon in iron based material |
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| Name | MA/MS Date | MA/MS Thesis | Ph.D. Date | Dissertation |
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| | | | - | |
| Dr. Yunxiang Liao | 2013 | Low Resolution ab initio Phasing Method by Modification of Density and Phase in Real and Reciprocal Space | 2018 | Probes of nonequilibrium quantum matter and many-body delocalization |
| Dr. Xingcheng Lin | 2014 | Order and disorder control the functional rearrangement of influenza hemmagglutinin | 2018 | Uncovering the molecular mechanism underpinning the function of influenza hemagglutinin |
| Dr. Binod Rai | 2014 | Superconductivity in single crystals of Lu3T4Gel3-x (T = Co, Rh, Os) and Y3T4Gel3-x (T= Ir, Rh, Os) | 2018 | Intermediate valence to Kondo behavior in Yb3T4Gel3 and YbT3M7 compounds |
| Dr. Zhoudunming Tu | 2015 | Studies of Strange Particle Productions in pp, pPb and PbPb collisions at LHC Energies | 2018 | Search for the anomalous chiral effects via charge-dependent azimuthal correlations in protonnucleus and nucleus-nucleus collisions at the LHC |
| Dr. Antony Adair | NA | NA | 2017 | A Machine Learning Based Search for Supersymmetry in all Hadronic Decays of the sTop Particle |
| Dr. Yi Bao | 2015 | In Silico Discovery of High Deliverable Capacity Metal-Organic Frameworks | 2017 | Computational Discovery of Metal- Organic Frameworks with High Gas Deliverable Capacity |
| Dr. Scott Carr | 2015 | Structure and Composition of the Superconducting Phase in Alkali Iron Selenide KyFe1.6+xSe2 | 2017 | Diverse Neutron Scattering Measurements in Unconventional Superconductors |
| Dr. Francisco Camargo | 2015 | Strontium Laser Cooling and Trapping Apparatus | 2017 | Rydberg molecules and polorans in ultracold strontium gases |
| Dr. Chih-Wei Chen | 2016 | Itinerant Ferromagnetism Induced by P Doping in CoAs | 2017 | Correlations Between Magneto- Transport Properties and Crystal Structure in Transition Metal Pnictides and Chalcogenides |
| Dr. Yang-Zhi Chou | 2014 | Chalker scaling, level repulsion and conformal invariance in critically delocalized matter: Disordered topological superconductors and artificial graphene | 2017 | Topological Solid State Materials and Quenched Disorder: Transport, Spectral Correlations, and Topological Protection |

| Name | MA/MS Date | MA/MS Thesis | Ph.D. Date | Dissertation |
|--------------------|------------|---|------------|--|
| | | • | | |
| Dr. Tilak Dhakal | 2013 | A Symmetric Probabilistic y- index for Monte Carlo Dose Comparisons: An Application to Proton Therapy | 2017 | Multi-Scale Calculation Based on Dual Domain Material Point Method Combined with Molecular Dynamics |
| Dr. Lin Dong | 2013 | Finite Momentum Driver Bound State Fulde-Ferell Pairing in Stability in Spin-Orbit Coupled Fermigas | 2017 | Synthetic Spin-Orbit and light Field Coupling in Ultra-Cold Quantum Gases |
| Dr. Lingjie Du | 2013 | Observation of Quantum Spin Hall States in InAs/GaSb Bilayers under Broken Time- Reversal Symmetry | 2017 | Experiments on Quantum Phases in InAs/GASb Bilayers: Topological Insulator and Exciton Condensation |
| Dr. Pu Han | 2013 | Physical Model of the Immune Response of Bacteria Against Bacteriophage Through the Adaptive CRISPR-Cas Immune System | 2017 | Physical Model of the Co-Evolution of Bacteria and Viruses Mediated by CRISPR |
| Dr. Will Hardy | 2014 | Nanostructure Investigations of Nonlinear Differential Conductance in NdNiO3 Thin Flms | 2017 | Nanoscale Electronic Transport Studies of Novel Strongly Correlated Materials |
| Dr. Michael Kelley | 2014 | Dynamics of Ion-Pair Formation in K (14p, 20p)-SF6, CC14 Collisons | 2017 | Analysis of the dynamics of heavy- rydaberg ion pair formation through studies of electron capture reactions. |
| Dr. Yajing Li | 2013 | Control of Vibrational Energies in Single-molecule | 2017 | Surface Enhanced Vibrational spectroscopy and Electrical Characterization on Nanojunctions |
| Dr. Andy Liao | 2014 | Numerical Simulaton of an Experimental Analogue of a Planetary Magnetosphere | 2017 | Exploring supersonic magnetized astrophysical flows with numerical simulations and multiple experimental techniques of the OMEGA laser |
| Dr. Jun Liu | 2014 | Plasmon-Induced Hot Carriers in Metallic Nanoparticles | 2017 | Dynamics of Plasmon-Induced Hot Carriers in Metallic nanoparticles |

| Name | MA/MS Date | MA/MS Thesis | Ph.D. Date | Dissertation |
|----------------------------|------------|--|------------|--|
| | | | | |
| Dr. Haoran Man | 2017 | Electronic nematic correlations in the stress-free tetragonal state of BaFe ₂ -xNi _x As ₂ | 2017 | Neutron scattering and transport studies of BaFe2-xNixAs2, FeS and Y3Fe2(FeO4)3 |
| Dr. James Matthews | 2014 | Gold Nanorod supported Phospholipid bilayer structures and Phases Detected by Surface Enhanced Raman Scattering | 2017 | Structural Analysis by Enhanced Raman Scattering |
| Dr. Benjamin Michlin | 2014 | Ugrade Studies for the CMS Detector Muon System at the CERN LHC | 2017 | A Topological Search for New Beyond the Standard Model Light Bosons Decaying into Muon Pairs with the CMS Detector at the CERN LHC |
| Dr. Emilian Nica | 2013 | Quantum Critical Kanda Destruction of the Base-Fermi Kanda Model with a local transverse field | 2017 | Strongly correlated electron systems: from Quantum Criticality in Heavy-Fermion Metals to Orbital-Entangled Superconductivity in Fe-Based Materials. |
| Dr. Melissa Revelle | 2013 | An All Solid-Sate Laser System for Trapping Lithium | 2017 | Quasi-One-Dimensional Ultracold Fermi Gases |
| Dr. Stuart Sevier | 2016 | Mechanical Bounds to Transcriptional Noise | 2017 | Mechanical properties of transcription and their role in gene compounds |
| Dr. Li Sun | 2014 | Connecting Thermal and Mechanical Protein (Un) Folding Landscapes | 2017 | Probing Mechanical properties by molecular dynamics simulations |
| Dr. Yu Song | 2015 | Mott Insulator Induced near Ion Pnictide | 2017 | Neutron Scattering Studies of some NaFeAs and BaFe2As2 Derivatives and Ce1-x YbxCoIn5 |
| Dr. Jacob Wahlen-Strothman | 2015 | Lie Algebraic similarity transformed Hamiltonians for Lattice Model Systems | 2017 | Lie algebraic similarity transformations: improving wavefunctions for weak and strong correlations |
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| Name | MA/MS Date | MA/MS Thesis | Ph.D. Date | Dissertation |
|-----------------------|------------|---|------------|--|
| | • | | | |
| Dr. Dong Wang | 2016 | Migration in asymmetric random environments | 2017 | Effect of Modularity on Evolution in Heterogeneous Environments |
| Dr. Xiao Yang | 2015 | Fan-Shaped Gold Nanoantennas above Reflective Substrates for Surface- Enhanced Infrared Absorption(SEIRA) | 2017 | Extraordinary light-induced local field, angular momentum and force near metallic nanoparticles |
| Dr. James Zabel | 2013 | Occupancy Study of he CMS Pixel Subdetector for the Phase 1 Upgrade | 2017 | Search for Direct Top Squark Pair Production in the Fully Hadronic Final state at start(s)=13TeV |
| Dr. Xinyue Zhang | 2013 | Creating Strontium Rydberg Atoms | 2017 | Probing Electron-Electron and Atom-Atom Interactions using Rydberg Atoms |
| Dr. Yue Zhang | 2015 | Tunable Charge Transfer Plasmon | 2017 | Interacting surface plasmon with electron beam and acoustic vibration |
| Dr. Brian DeSalvo | 2012 | Degenerage Fermi Gas of 87Sr | 2016 | Ultralong-Range Molecules and Rydberg Blockade in Ultracold 84Sr |
| Dr. Ruoyu Chen | 2012 | Excess noise in scanning tunneling microscope-style break unctions at room temperature | 2016 | RF Shot Noise Measurements in Au Atomic-scale Junctions |
| Dr. Kenneth Evans | N/A | N/A | 2016 | Photoresponse of bowtie nanojunctions |
| Dr. Tzu-Lin Sun | 2012 | Why Hydrocarbon-Cross-Linked Peptides are Membrane Permeable | 2015 | Attack on Single Escherichia Coli Spheroplast by Antimicrobial Peptides |
| Dr. Zhentao Wang | N/A | N/A | 2016 | Frustrated Magnetism in Strongly Correlated Electron Systems |
| Dr. Sithara Wijeratne | N/A | N/A | 2016 | Single Molecule Force Signatures in Biological Physics |
| Dr. Kefeng Xin | N/A | N/A | 2015 | Search fro Muonic Atoms and Dimuon Productions in Heavy-Ion Collisions |

| Name | MA/MS Date | MA/MS Thesis | Ph.D. Date | Dissertation |
|-------------------------|------------|---|------------|--|
| Dr. Liheng Zheng | 2011 | A Method to Compute Three Dimensional Megnetospheric Equilibria with Dipole Tilt and it's Application in Estimating Magnetic Flux Tube Volume | 2015 | Development and Application of Stochastic Methods for Radiation Belt Simulations |
| Dr. Yang Cao | N/A | N/A | 2015 | Electron Energy Loss Spectroscopy and Optical Properties of Plasmoic Nanostructure |
| Dr. Paul Cauley | N/A | N/A | 2014 | Diagnosing Mass Flows in Herbig Ae/Be Stars |
| Dr. Man Chen | 2012 | Hierarchy of Gene Expression as a Biomarker for Breast Cancer Prognosis | 2014 | Theoretical Biological Physics of Structural Dynamics in Physiology and Evolution |
| Dr. Wei Chen | 2011 | Spectropolarimetry of the Classic T Tauri Star BP Tau | 2014 | Magnetic Fields and Accretion on T Tauri Stars |
| Dr. Pedro Duarte-Gelvez | 2011 | Narrow Line laser cooling of lithium: A new tool for all optical production of quantum degenerate Fermi gases | 2014 | Observation of antiferromagnetic correlations in the Fermi-Hubbard model |
| Dr. Ryan Hayes | N/A | N/A | 2015 | Towards a Simplified Model of the RNA Free Energy Landscape and its Mg2+Dependence |
| Dr. Julie Hogan | 2012 | Missing Energy Studies at the D0 Experiement | 2015 | Measurement of the Forward- Backward Asymmetry in the Production of B+ Mesons in p p - bar Collisions |
| Dr. Heng Ji | N/A | N/A | 2015 | Hydrogen Doping and the Metal- Insulator Phase Trasnistion in Vandium Dioxide |
| Dr. Nicholas King | 2011 | Angle-and Sprectral-Dependent Light Scattering from Plasmonic Nanocups | 2015 | Plasmonic Nanostructures for Enhanced Solar Cells and Colorimetric Spectroscopy Techniques |
| Dr. Vikram Kulkarni | N/A | N/A | 2015 | A First Principles Approach to Describing Novel Plasmonic Phenomena |
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| Name | MA/MS Date | MA/MS Thesis | Ph.D. Date | Dissertation |
|--------------------------------------|------------|--|------------|--|
| | | | | |
| Dr. Matthew Levy | 2011 | Focusing of Intense Picosecond Laser Pulses in Converging Target Geometries | 2014 | Modeling of Intense Laser Driven High Energy Density Plasmas |
| Dr. Lifei Liu | N/A | N/A | 2014 | Plasmonic Properties of Aluminum Nanostructures |
| Dr. Patrick McQuillen | 2012 | High Resolution Sculpting and Imagine of Ultracold Neutral Plasmas | 2015 | High Resolution Measurement and Modeling of Ion Dynamics in an Ultracold Neutral Plasma |
| Dr. Jeffrey Reep | 2012 | Evidence for Impulsive Heating of Active Region Coronal Loops | 2014 | Hydrodynamic Modeling of Heating Processes in Solar Flares |
| Dr. Sarah Story | 2011 | Magnetic Pair Creation Transparency in Gamma-Ray Pulsaras | 2014 | Pair Creation Transparency in Gamma-Ray Pulsars |
| Dr. Changhao Wang | 2010 | Lifetimes of Weakly Bound Heavy-Ridberg Ion-Pair States Formed Through Rydberg Atom Collisions with Attaching Targets | 2015 | Dynamic and Dissociation of Collisionally Formed Heavy- Rydberg Ion-Pair States |
| Dr. Jiakui Wang | 2011 | A Layered Transition Metal Pnictide SrMnBi2 with Metallic Blocking Layer | 2015 | Layered Transition Metal Pnictides Investigated by Experimental and Computaional Methods |
| Dr. Jianda Wu | N/A | N/A | 2014 | Research on Dynamics and Thermodynamics near Quantum Critical Points |
| Dr. Yu Zhang | N/A | N/A | 2014 | Nonlinear Nanophotonic Systems for Harmonic Generation, Parametric Amplification, Optical Processing and Single-Molecule Detection |
| Dr. Ramachandhran Balasubramanian | Dec 2010 | Finite-Temperature Study of Bose-Fermi Superfluid Mixtures | 2014 | Rashba Spin-Orbit Coupled Quantum Gases |
| Dr. Yaxue Dong | 2010 | A Model for the Neutral H2O Density in the Enceladus Plume | 2014 | The Water Vapor and Dust Plumes of Enceladus |
| Dr. Eric Frey | 2012 | Experimental Free Energy Landscape Reconstruction of DNA Unstacking Using Crooks Fluctuation Theorem | 2014 | DNA Free Energy Landscapes and RNA Nano-Self-Assembly Using Atomic Force Microscopy |

| Name | MA/MS Date | MA/MS Thesis | Ph.D. Date | Dissertation |
|-------------------------|------------|--|------------|---|
| | | | | |
| Dr. Jedediah Pixley | Dec 2011 | Kondo Destruction and Valence Fluctuations in the Particle Hale Asymmetric Anderson Model | 2014 | Quantum Criticality, Magnetic Frustration, and Unconventional Superconductivity in Heavy Fermion Metals |
| Dr. Nicholas P. Schafer | 2011 | Frustration in the Energy Landscapes of Multidomain Protein Misfolding". Paper submitted to Journal: Proceedings of the National Academy of Sciences | 2014 | Folding, Binding, Misfolding and Aggregation with AWSEM |
| Dr. Aditya Shashi | Dec 2011 | Non Universal Prefactors in Correlation Functions of ID Quantum Liquids | 2014 | Exploring Aspects of Nonequilibrium Physics with Quantum Impurity Problems |
| Dr. Zorawar Wadiasingh | 2011 | Cooling Rates for Relativistic Electrons Undergoing Compton Scattering in Strong Magnetic Fields | 2014 | Resonant Compton Scattering in Highly-Magnetized Pulsars |
| Dr. Patrick J. Wheeler | 2010 | Shot Noise Supression at Room Temperature in Atomic-Scale Au Junctions | 2014 | Quantum Shot Noise Characteristics in Atomic Scale Junctions at Liquid Nitrogen and Room Temperatures Using Novel Measurement Technique |
| Dr. Apiwat Wisitsorasak | 2013 | Fluctuating Mobility Generation and Transport in Glasses | 2014 | Dynamical Heterogeneity of the Glassy State |
| Dr. Mi Yan | Dec 2011 | Numerical Modeling of Collisional Dynamics of Sr in an Optical Dipole Trap | 2014 | Optical Feshbach Resonances and Coherent Photoassociation in a Strontium BEC |
| Dr. Shuzhen Ye | Dec 2011 | Chaotic Ionization of a Rydberg Atom Subjected to Alternating Kicks | 2014 | Experimental Study of Potassium and Strontium Rydberg Atoms - Chaotic Ionization, Quantum Optical Phenomena and Multiphoton Excitation |
| Dr. Chunming Zhu | Dec 2010 | Magnetic Helicity Injection and Velocity Characteristics of Rotating Sunspots | 2014 | Dynamics and Evolution of Solar Eruptive Prominences |
| Dr. Lindsey Anderson | 2010 | Quantitative Measurements of Individual Gold Nanoparticle Scattering Cross Sections | 2013 | Manipulation of Energy Propogation, Redirection, and Dissipation by Tunable Plasmonic |

| Name | MA/MS Date | MA/MS Thesis | Ph.D. Date | Dissertation |
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| | | | | |
| | | | | Naostructures |
| Dr. Yang Li | | | 2013 | Engineering Application-Specific Plasmonic Nanoparticles: Quantitative Measurements and Precise Characterization |
| Dr. Xin Liu | 2010 | | 2013 | Modeling the Plasma Convection in Saturn's Inner Magnetosphere |
| Dr. Hong Liu | Jan 2010 | Numerical Studies of Ultracold Atomic Gases | 2013 | Searching for FFLO States in Ultracold Polarized Fermi Gases: A Numerical Approach |
| Dr. Michelle Victoria Prewit Mathis | 2010 | Operation of the Runn IIB DO Luminosity System and Determination of the Runn IIB Luminosity Constant | 2013 | Statistical Moments of the Multiplicity Distributions of Identified Particles in Au+Au Collisions |
| Dr. Daniel McDonald | Dec 2010 | Calibration of the STAR Time-of- Flight Detector for Particle Identification | 2013 | Search for the Rare Decay Bs- >mu+mu- at D0 |
| Dr. Eileen Theresa Meyer | 2008 | The Effects of Intrinsic Spectral Curvature and Flux Limits on the Measured Evolutionry Behavior of Lacertae Objects | Dec 2013 | The Blazer Envelope and the Relativistic Jet Dichotomy: Unification of Radio-Loud AGN |
| Dr. Christopher Olsen | 2009 | on Flux Maps and Helicon Source Efficiancy in the VASIMR VX-100 Experiment Using a Moving Langmuir Probe Array | 2013 | Experimental Characterization of Plasma Detachment from Magnetic Nozzles |
| Dr. Asher Pembroke | Jan 2010 | LFM-RCM: Toward a Coupled Description of the Inner and Outer Magnetosphere | 2013 | A Dynamic Coupled Magnetosphere-lonosphere-Ring Current Model |
| Dr. Yu Pu | Jan 2010 | Effects of Stray Fields on lonization of Rydberg Atoms near Gold Surfaces | Dec 2013 | Ionization of Rydberg Atoms at Patterned Electrode Arrays |
| Dr. William Rice | Jan 2010 | | 2013 | Low-Energy Charge and Spin Dynamics in Quantum Confined Systems |
| Dr. Kui Bao | Jan 2009 | Fano Resonances in Plasmonic Nanoparticle Aggregates | 2012 | Plasmon Hybridization in Real Metals |

| Name | MA/MS Date | MA/MS Thesis | Ph.D. Date | Dissertation |
|----------------------------|------------|---|------------|--|
| | | | | |
| Dr. Brent Carey | Apr 2010 | Tailoring Vertically-Aligned Carbon Nanotube Growth for Poly (dimethysiloxane)-Infiltrated Nanocomposites | 2012 | Novel Material Behavior in Carbon Nanotube/Elastomer Composites |
| Dr. Xuhui Chen | Dec 2010 | Time Dependent Simulation of Blazar Mrk 421 Using a Monte Carlo Mulizone Code | 2012 | Understanding the Nature of Blazers High Energy Emission with Tim Dependent Multi-zone Modeling |
| Dr. Guy Hilburn | Jan 2010 | General Relativistic MHD and Monte Carlo Simulations of the Broadband Spectra of Sagittarius A* | 2012 | Studies of Low Luminosity Active Galactic Nuclei with Monte Carlo and Magnetohydrodynamic Simulations |
| Dr. Bei Hu | 2010 | RCM simulation of the March 23rd 2007 substorm event using the Open GGCM | 2012 | Modeling the Earth's Magnetosphere using Magnethoydynamics |
| Dr. Ivan Knez | 2010 | Quantum Transport in Inverted InAs/GaSb Composite Quantum Wells | 2012 | Transport Properties Of Topological Phases In Broken Gap InAs/GaSb Based Quantum Wells |
| Dr. Oleksandr Kuznetsov | 2010 | Functionalization of Carbom Nanomaterials for Biomedical & Composite Applications | 2012 | Functionalization of Nanocarbons for Composite Biomedical and sensor applications |
| Dr. James (Britt) Lassiter | Jan 2009 | | 2012 | Complex Plasmonic Nanostructures: Symmetry Breaking and Coupled Systems |
| Dr. Chang-chun Lee | Dec 2011 | Membrane-Mediated Peptide Conformation Change From alpha-Monomers to beta- Aggregates | 2012 | Interactions of Amyloid-Forming Peptides with Lipid Bilayer Membranes |
| Dr. Kaijian Liu | 2010 | Membrane-Mediated Peptide Conformation Change From alpha-Monomers to beta- Aggregates | 2012 | Teleseismic Imaging of the Crust and Upper Mantle in the Western United States |
| Dr. Jorge Zuloaga | | | Dec 2011 | Quantum Plasmonics: A first- principles investigation of metallic nanosructures and their optical properties. |

| Name | MA/MS Date | MA/MS Thesis | Ph.D. Date | Dissertation |
|---------------------|------------|---|------------|---|
| | · | | | |
| Dr. Daniel Stark | Jan 2010 | The Use of a Microelectroporator to Study Poration of Jurkat Cells | Dec 2011 | Measuring Dyanamic Membrane Mechanical Properties using a combined Microfabricated Magnetic Force Transducer-Microaspiration System |
| Dr. Jose Castro | Jan 2010 | Sheet Fluorescence and Annular Analysis of Ultracold Neutral Plasmas | 2011 | Collective effects in Ultracold Neutral Plasmas |
| Dr. Anton Naumov | Jan 2008 | Electric Field Quenching of Single-Walled Carbon Nanotube Photoluminescence | 2011 | Advcanced Characterization and optical proerties of single-walled nanotubes and graphene oxide |
| Dr. Paul Mattione | 2007 | Kinematic Fitting of Detached Vertices | 2011 | K*(892) and K+S*(1385)- Photoproduction on the Deuteron |
| Dr. Yuan Mei | | | 2011 | Direct Dark Matter Search with the XENON 100 Experiment |
| Dr. Hao Lu | Jan 2009 | Frictional properties of Vertically Aligned Multiwalled Carbon Nanotube and Fluorinated Nano Diamond film and The Reverse Stick-slip behavior | 2011 | Electromechanical Investigation of Low Dimensional Nanomaterials for NEMS Applications |
| Dr. Yean-An Liao | | · | 2011 | Strongly Interacting Fermi Gases in 3D and 1D |
| Dr. Ramsey I. Kamar | 2006 | Measurement of the Interactions in a Paired Zero Temperature 6Li Gas Throughout the BEC-BCS Crossover | 2011 | Biophysical interactions of the OHC Motor Protein Prestin: A study at the single molecule level |
| Dr. Yen Sun | Jan 2010 | The Bound Staes of Amphipathic Drugs in Lipid Bilayers: Study of Curcumin | 2011 | Methods of using giant unilamellar vesicles for studying membrane-molecule and membrane-membrane interactions |
| Dr. Roman Gomez | 2007 | Characterization of the Xenon- 10 Dark Matter Detector with Regard to Electric field and Light Response | 2011 | Simulation and Optimization of ESA Designs for Space Plasma Missions |
| Dr. Brendan Wyker | 2008 | Realization of the Bohr Atom | 2011 | High Angular Momentum Rydberg Wave Packets |

| Name | MA/MS Date | MA/MS Thesis | Ph.D. Date | Dissertation |
|------------------------------|------------|---|------------|---|
| | | | | |
| Dr. Yanhua Dai | Jan 2010 | Magnetotransport in Zener Tunneling Regime in a High- Mobility Two-Diminsional Hole System | 2011 | Quantum Transport and Microwave Response in Modulated High- Mobility Two-Dimensional Electron Systems |
| Dr. Yang Song | 2008 | | Dec 2010 | Space Weather Event Modeling of Plasma Injectio Into the Inner Magnetophere with the Rice Convection Model |
| Dr. Cary Pint | 2009 | Vertically Aligned Single-walled Carbon Nanotube Growth From Fe-Mo Catalyst; an Experimental and Modeling Approach to Why Deposition Order Matters | Dec 2010 | Synthesis, Transfer Printing, Electrical and Optical Properties, and Applications of Materials Composed of Self-Assembled, Aligned Single-Walled Carbon Nanotubes |
| Dr. Daniel Ward | Jan 2008 | | Dec 2010 | Electrical and Optical Characterization of Molecular Nanojunctures |
| Dr. Yi Chen | Jan 2009 | | Dec 2010 | Centrifugally Driven Radial convection of Plasma in Saturn's Inner Magnetosphere |
| Dr. Betty Rostro | 2006 | Earned MS in MEMS | Dec 2010 | |
| Dr. Dennis Dean Neufeld | 2007 | An Ultra-Compact Retarding Potential Mott Polarimeter | Dec 2010 | Interaction of Xenon Rydberg Atoms with Conductive Srufaces: The Effects of Stray Fields |
| Dr. Jiankui He | Jan 2009 | | Dec 2010 | Spontaneous Emergence of Hierarchy in Biological Systems |
| Dr. Dennis Mackin | Jan 2008 | Multivariate Search for the Lightest Supersymmetric Partner of the Top Quark | Dec 2010 | A Search for the Lightest Supersymmetric Partner of the Top Quark at Dø |
| Dr. Anne Sandmann | 2008 | 3D Simulations of Magnetic Fields in the Solar Atmosphere: Preparing for STEREO Data Analysis | Dec 2010 | Magnetic Modeling of the Solar Corona |
| Dr. Ramkumar Balasubramanian | Jan 2009 | | 2010 | Forecasting Geomagnetic Activity Indices Using the Boyle Index Through Artificial Neural Networks |

| Name | MA/MS Date | MA/MS Thesis | Ph.D. Date | Dissertation |
|---|------------|--|------------|--|
| | | | | |
| Dr. Yanpeng Wu | | Plasmon Hybridization and Finite Difference Time Domain (FDTD) Study on Nonconcentric Nanoshells (paper, non-thesis) | 2010 | Plasmonic Properties of Metallic Nanostructures with Reduced Symmetry |
| Dr. Hui Zhan | Jan 2008 | Temperature Dependence of Terahertz Emissoin from InMnAs | 2010 | Applications of Surface Plasmon Polariton in Terahertz Spectral Regime |
| Dr. Chanjuan Sun | Jan 2008 | Magneto-Optical Spectroscopy of (III,Mn)V Ferromagnetic Semiconductors | 2010 | Magneto-Optical Spectroscopy of Novel Ferromagnetic Materials |
| Dr. Yenny Natali Martinez de Escobar | 2005 | Studies of the 5s21S05s5p3P1 Transition in Atomic Strontium | 2010 | Boses-Einstein Condensation of 84Sr |
| Dr. Daniel Dries | Jan. 2006 | Fabrication of a High Resolution Relay Lens for Use in Imaging Ultra-Cold Quantum Gases | 2010 | Transport Properties of a Bose- Einstein Condensate with Tunable Interactions in the Presence of a Disordered or Single Defect Potential |
| Dr. Kristjan Stone | Jan. 2008 | B-Periodic Oscillations in Microwave Irradiated High Mobility 2D Electron Gases non-thesis | 2010 | Milimeter Wave Transmission Spectroscopy of 2D Electron and Hole Systems |
| Dr. Errol Summerlin | Jan. 2006 | Modeling Accelerated Pick-up Ion Distributions at an Interplanetary Shock | Jan. 2010 | Diffusive Acceleration of Particles at Collionless Magnetohydrodynamic Shocks |
| Dr. Jian Yang | Jan 2009 | Interchange Instability in a Rice Convection Model Simulation of the 18 April 2002 Sawtooth Event | Jan. 2010 | Inner Magnetospheric Modeling During Geomagnetic Active Times |
| Dr. Jianhang Zhou | Jan 2007 | Construction of a New Detector, and Calibration Strategies, for Start Timing in the STAR Experiment at RHIC | Jan. 2010 | Light (Anti-)Nuclei Production in the STAR Experiment at RHOC |
| Dr. Feng Hao | Jan 2007 | Plasmonic Structure of the Metallic Nanosphere/Thin Wire System non-thesis | Jan. 2010 | Plasmon Hybridization inComplex Metallic Nanostructures |

| Name | MA/MS Date | MA/MS Thesis | Ph.D. Date | Dissertation |
|-----------------------------|------------|---|------------|--|
| | | | | |
| Dr. Tae-Ho Park | 2006 | | Jan. 2010 | Plasmonic Properties of Metallic Nanostructures |
| Dr. Zachary Keane | 2006 | Magnetoresistance of Atomic- Scale Electromigrated Nickel Nanocontacts non thesis | Jan. 2010 | Transport Phenomena in Molecular-Scale Devices |
| Dr. Konstantinos Tsekouras | Jan 2008 | Dynamic Evolution of Spin-1 and Spin-2 Dipolar BECs | Jan. 2010 | Coupled Simple Exclusion Process Models |
| Dr. Nolan Harris | 2006 | Disorder in DNA-Linked Gold Nanoparticle Assemblies | Jan. 2010 | Nanoscale Manipulation and Studies of Individual Biomolecules and DAN-Based Nanostructures |
| Dr. Robert Carver | 2005 | A Model for Nucleation and Growth of SWNTS via the HiPco Process: A Catalyst Concentration Study(published paper) | Jan. 2010 | Shocks and Jets from the Laboratory Environment to the Astrophysical Regime: Transforming AstroBEAR Into an All Purpose MHD Simulation Package |
| Dr. Nissanka Wickremasinghe | Jan. 2006 | Protein Crystals as Scanned Probes for Molecular Recognition Atomic Force Microscopypublished paper | Jan. 2010 | Charge Regulation in Lipid Membranes due to Lipid Mobility |
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| Dr. Jonah Shaver | N/A | N/A | Jan. 2009 | High Field Magneto-optical Spectroscopy of Semiconducting Single-walled Carbon Nanotubes |
| r. Wangchen Wang | 2006 | Interactions of Highly Charged Cationic Peptides and Large Anions with Lipid Bilayers | Jan. 2009 | Structural Study on Lipid Membrane by X-ray Anomalous Diffraction |
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| Dr. Daniel Brandl | 2005 | Plasma Hybridization in Nanoshell Dimers | 2008 | Plasmon Hybridization in Generalized Metallic Nanostructures |
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| Dr. Sasa Zaric | N/A | N/A | May 2007 | Optical Spectroscopy of Single- Walled Carbon Nanotubes in High Magnetic Fields |
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| Dr. Bin Gong | 2003 | Observations of Ultra-Low Frequency Waves in the Martian Magnetosheath and Magnetic Pileup Regionpaper submitted to the Journal of Geophysical Research | Jan. 2006 | Low Frequency Plasma Waves at Mars |
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| Dr. Jared Espley | 2004 | Observations of Ultra-Low Frequency Waves in the Martian Magnetosheath and Magnetic Pileup Regionpaper submitted to the Journal of Geophysical Research | Jan. 2006 | Low Frequency Plasma Waves at Mars |
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| Dr. Lai Ding | 2002 | Studies of the Outer Membrane of Gram-negative Bacteria | 2005 | New Approaches for Investigating Membrane Problems. A Study by Oriented Circular Dichroism and X-Ray, Neutron Diffraction |
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| Dr. Brent A. Buckalew | 2001 | The Starburst-Interstellar Medium Interaction in NGC 1569 I.Location and Nature of He ii Sources Using Hubble Space Telescope WFPC2Imagery. | 2003 | Comparison of Clusters With and Without Detectable Wolf-RayetStars in Starburst Galaxies Using Optical, Near-Infrared Imagery andSpectroscopy |
| Dr. Thomas Weiss | N/A | N/A | 2003 | Effects of Membrane Inclusions on Lipid Bilayer Structure and Dynamics Studied with Elastic and Inelastic X-Ray Scattering |
| Dr. Wei Lu | 2000 | Electrical Transport in a Single- Electron Transistor Coupled to a Tunable Environment | 2003 | Single-Electron Transistor: Effects of the Environment and Detecting Electron Motion in Real Time |
| Dr. Angela Bellavance | 2000 | KTeV E799II search for the lepton-flavor-number violating decay KL > o e | 2003 | Search for the Lepton-Flavor- Number Violating Decay KL > ° ± em in the Full E799II KteV Data Set |
| Dr. Christopher L. Stokely | 1998 | Design, construction, and commissioning of the Time-of-Flight Detector for BNL-AGS Experiment 896 | 2003 | The Study of the Perturbation of Rydberg Atoms by Half Cycle Pulses and by Surfaces |
| Dr. Emil Prodan | N/A | Resonant States: Three Theoretical Results | 2003 | Theoretical Investigations of the Electronic Structure and Optical Properties of Metallic Nanoshells |
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| Dr. Timothy Glover | N/A | N/A | 2002 | Measurement of Plasma Parameters in the Exhaust of a Megnetoplasma Rocket by Gridded Energy Analyzer and Emissive Langmuir Probe |
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| Dr. Michael Casavant | 2000 | Assemblies of Magnetically Aligned Carbon Nanotubes | 2002 | Neat Macroscopic Membranes of Aligned Carbon Nanotubes |
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| Dr. Kristofer Kainz | 1998 | Design Construction and Commissioning of the Exit Charge Detector for BNL-AGS Experiment 896 | 2002 | Neutral Strange Particle Spectra With Direct Daughter Particle Identification in 11.6A GeV/c Au+Au Collisions |
| Dr. Jie Zhang | 1995 | Production, Properties and Purfication of Carbon Nanotubes | 2002 | Pure and Binary Associating Fluids Near Active Surfaces |
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| Dr. Priya Parthasarathy | 1997 | Decay Energetics and Lifetime Measurements of Tansient Negative Ions Using Rydberg Atoms. | 2001 | Use of Rydberg Atoms as a Microscale Laboratory to Probe Low Energy Electron-Molecule Interactions. |
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| Dr. Jordan M. Gerton | 1998 | Laserless Slow Atom Source for Loading Atom Traps | 2001 | Molecular Spectroscopy of Bose- Einstein Condensates With Attractive Interactions. |

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| Dr. lan McAlexander | 1995 | Precised determination of the 2P radiative atomic lifetime of lithium using photo-associative spectroscopy | 2001 | Collisional Interations in an Ultracold Lithium Gas. |
| Mr. Dechun Lin | N/A | N/A | 2000 | X-Ray and Gamma-Ray Emissions from 2000-Jan Galactic Black Hole Candidates: Observations and Analysis |
| Dr. Parviz Ghavamian | N/A | N/A | 2000 | Optical Spectroscopy and Numerical Modeling of Nonradiative Shocks in Young Supernova Remnants |
| Dr. Greg Hale | 1997 | Triplet Exciton Dynamics in Conjugated Polymer Films. | 2000 | Impeded Photo-Oxidation of Conducting Polymer Films Using Metal Nanoshells |
| Dr. Simon J. Taylor | 1996 | Scintillation Detector Development for the Solenoidal Trackerat RHIC (STAR) and the CEBAF Large Acceptance Spectrometer (CLASS). | | Radiative Decays of Low-Lying Excited-State Hyperons |
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| Dr. Thad Harroun | 1997 | Membrane Mediated Peptide Interaction: Gramicidin In-plane Distribution by X-ray Scattering. | 2000 | Hydrophobic Matching and Membrane Mediated Interactions in Lipid Bilayers |
| Dr. Carla Finch | 1996 | Electron Attachment Standards Using Rydberg Atoms | 2000 | Dissociative and Non-dissociative Electron Attachment Processes Studied Using Rydberg Atom Techniques |