2007 Student Symposium

TECHNICAL TALKS
UNM-LA
Rm. 220, Student Center

Time	Field	Student's Name	Presentation Title	Judges
1:00-1:25	Earth & Space Science	Colantuono, Giuseppe GRA	Topographically Intensified Rossby Basin Modes in a Two Layer Numerical Model	W. Brunish J. Burward-Hoy
1:25-1:50	Earth & Space Science	Sauer, Jeremy GRA	Impact of Multiple Fuels Representation in Wildfire Modeling	W. Brunish J. Burward-Hoy
1:50-2:15	Earth & Space Science	Canfield, Jesse GRA	Importance of Three-Dimensional Aspects in Wildfire Behavior	W. Brunish J. Burward-Hoy
2:15-2:40	Earth & Space Science	Gramann, Jonathan UGS	Atmospheric Aerosol and Cloud Interactions	J. Burward-Hoy E. Schulz-Fellenz
2:40-3:05	Earth & Space Science	Nelson, Sarah UGS	Two-Dimensional Modeling of a Fire or Plume in a Cross Flow and its Limitations	E. Schulz-Fellenz W. Hartwell
3:05-3:30	Biosciences	Atlas, Jordan GRA	Comparison of a Rule-Based and a Traditional Pathway Model of a Signal Transduction System	C. Kiss D. Wilburn
3:30-3:55	Biosciences	Hanson, Joshua GRA	Cell Endocytosis of Fluorescent Silica Nanoparticles	C. Kiss D. Wilburn
3:55-4:20	Biosciences	Zelenay, Paulina UGS	X-Ray Scattering Investigations of Siderophores Interacting with Model Biological Membranes	C. Kiss D. Wilburn
4:20-4:45	Biosciences	Wilhelm, Daniel GRA	Evolution of Bacterial rRNA Signatures	C. Kiss D. Wilburn

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TECHNICAL TALKS
UNM-LA
Rm. 629

Time	Field	Student's Name	Presentation Title	Judges
1:00-1:25	Physics	Hayes, Tiffany UGS	Measurement of Plasma Temperature	G. Kunde D. Main
1:25-1:50	Physics	Fletcher, Samuel UGS	Jet Measurements for QGP Experiments at CMS	D. Main
1:50-2:15	Physics	Korzekwa, Richard UGS	Hohlraum Reactions as a NIF Diagnostic	G. Kunde D. Main
2:15-2:40	Physics	Perepelitsa, Dennis UGS	High-Energy Neutron-Induced Transitions in Natural Lead	G. Kunde D. Main
2:40-3:05	Physics	Miller, Karen GRA	Neutron Multiplication in Subcritical Systems	M. Mocko T. Proffen
3:05-3:30	Physics	Kraus, Richard UGS	An Improved Design for Explosively Driven Flyer Plates	M. Mocko T. Proffen
3:30-3:55	Physics	Li, Tony UGS	The L ALPHA Spectra of Fe Ions	M. Mocko T. Proffen
3:55-4:20	Physics	Mastbaum, Andrew UGS	Simulation and Characterization of a Dark Matter Detector	M. Mocko T. Proffen

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TECHNICAL TALKS
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Time	Field	Student's Name	Presentation Title	Judges
1:00-1:25	Computing	Tietjen, Kelcey GRA	Searching for Rootkits with Windows Memory Analysis using Encase	S. Dean E. Nelson
1:25-1:50	Engineering	Canabal, Alberto GRA	Coupled Thermal-Electromagnetic Model for the Analysis of Multilayer-Coated Superconducting Accelerating Structures	E. Nelson N. Weisse-Bernstein
1:50-2:15	Chemistry	Hicks, Raea GRA	Preparation and Luminescence Studies of Ru (II) Polypyridyl Complexes in Silica Nanoparticles.	J. Foropoulos N. Henson
2:15-2:40	Non-Technical	Streeper, Charles GRA	Nefarious Uses of Radioactive Materials	A. Jenkins N. Weisse-Bernstein
2:40-3:05	Computing	Brock, Matthew GRA	Tree-Based Overlay Networks in High-Performance Computing	A. Kent Z. Baker
3:05-3:30	Computing	Cortez, Mandy GRA	Searching the World Wide Web (WWW) with Efficiency	A. Kent Z. Baker
3:30-3:55	Computing	Konwinski, Andrew GRA	A Close Look at Large Parallel Work Loads	A. Kent Z. Baker

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TECHNICAL TALKS
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Time	Field	Student's Name	Presentation Title	Judges
1:00-1:25	Materials Science	Niemeyer, Alyson GRA	High Quantum Efficiency Polymer Photoconductors Using Interdigitated Electrodes	J. Foropoulos S. Valone
1:25-1:50	Engineering	Nelson, Andrew GRA	Development of Diffusion Bonding Parameters for HT9-W and HT9-Ta	S. Valone S. Srivilliputhur
1:50-2:15	Engineering	Kienitz, Brian GRA	A Half Cell Model of Steady State PEM Fuel Cell Performance Degradation Under Contamination by Foreign Cationic Species	S. Srivilliputhur M. Cawkwell
2:15-2:40	Engineering	Marchi, Alexandria UGS	Complexity of Acoustic Emission Spectra during In-process Monitoring of Pinch Welds	S. Srivilliputhur M. Cawkwell
2:40-3:05	Physics	Faust, Ian UGS	Shielded Active Integrators for Use in Plasma Magnetic Field Diagnostics	J. Stairs C. Bolme
3:05-3:30	Physics	Brannon, Sean UGS	Non-thermal Plasma Effects on Hydrogasification of Coal	J. Stairs C. Bolme
3:30-3:55	Physics	Brock, Jacob UGS	Time Dependant Electron-Positron Pair Population in High-Energy Plasmas	J. Stairs C. Bolme

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TECHNICAL TALKS
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Rm. 625

Time	Field	Student's Name	Presentation Title	Judges
1:00-1:25	Physics	Tobash, Paul GRA	Heavy Fermion Compounds: Understanding the Strong Electronic Correlations in f- Electron Systems	K. Burch D. Thompson
1:25-1:50	Physics	Gamble, John UGS	Simulating a Quantum Ising Model on a Quantum Computer.	K. Burch D. Thompson
1:50-2:15	Physics	Chouinard, Emily UGS	Modeling Electron Distributions and Radiation Spectra Produced in Gamma Ray Bursts	K. Burch D. Thompson
2:15-2:40	Computing	Polte, Milo GRA	Multidimensional Extensions to a Distributed Filesystem	E. Nelson S. Dean
2:40-3:05	Computing	Ramsey, Scott GRA	The Eigenvalue Problem of Reflected Shock Waves Generated by Symmetric Implosions	E. Nelson S. Dean
3:05-3:30	Computing	Stan, Tiberiu UGS	Automation of Authorization Requirements for Radioactive Waste Compliance	R. Lowe P. Yang
3:30-3:55	Computing	Talachy, Henry UGS	Implementing Reporting Capabilities in LANL's Waste Compliance and Tracking System	R. Lowe P. Yang
3:55-4:20	Computing	Jackson, Julius UGS	Writing and Executing Test Cases in the Waste Compliance and Tracking System	R. Lowe P. Yang

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TECHNICAL TALKS
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Rm. 622

Time	Field	Student's Name	Presentation Title	Judges
1:00-1:25	Engineering	Barnett, Nathan GRA	One Group Transport Cross Section Generation for MCNP	R. Brewer C. Kelsey
1:25-1:50	Engineering	Davis, Adam GRA	A New Analytical Formula For Photon Buildup Factors In Dual-Layer Shields	R. Brewer C. Kelsey
1:50-2:15	Engineering	Harding, Lee GRA	Electron Soft Collisions Using Moment Preserving Models in MCNP	R. Brewer C. Kelsey
2:15-2:40				
2:40-3:05	Engineering	Solomon, Clell GRA	A Linear Tally Combination Addition to MCNP	T. Intrator H. Makaruk
3:05-3:30	Engineering	Jaworski, Jason UGS	Optimization of CdZnTe Semiconductor Anode Electrodes Using Gallus	T. Intrator H. Makaruk
3:30-3:55	Engineering	Marzano, Matthew UGS	Internal Electric Field Mapping of CZT Using Pockels Birefringence	T. Intrator H. Makaruk
3:55-4:20	Math	Godinez, Humberto GRA	Sensitivity Analysis in a Cloud Resolving Aerosol Model	T. Burr R. Owczarek
4:20-4:45	Math	Coxe, Julianne UGS	How Many Licks Does it Take to Get to the Center of a Tootsie Roll Pop? -OR- How Many Hours Does it Take to Model the Local Atomic Structure of a Sample? Two. Four.... Six.....Six!	T. Burr R. Owczarek

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TECHNICAL TALKS
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Rm. 517

Time	Field	Student's Name	Presentation Title	Judges
1:00-1:25	Computing	Davydenko, Ekaterina UGS	Xen Vitualization Scaling and Enterprise Environment	A. Salazar Z. Wang
1:25-1:50	Computing	Morse, Caleb UGS	Advance Health Monitoring of Computer Clusters	A. Salazar Z. Wang
1:50-2:15	Computing	Boyer, Colby UGS	Comparison of 10GigE and InfiniBand Interconnects	A. Salazar Z. Wang
2:15-2:40	Engineering	Geb, David UGS	Practical DNA-Based Clinical Diagnostics	M. Tonks C. Turner
2:40-3:05	Engineering	Godoy, William GRA	Modeling Radiation Heat Transfer in Multiphase Flows	M. Tonks C. Turner
3:05-3:30				
3:30-3:55				
3:55-4:20				
4:20-4:45				