ORAL PRESENTATIONS
UNM-LA RM. 517

Facilitator: Carson Hobart

Time	Field	Student	Presentation Title	Judges
1:00 – 1:25	Earth & Space Science	Hixon, Rachel	*Locating Historical Features on Recent Imagery Using an Evolutionary Algorithm*	Janecky, D. Lavine, A.
1:25 – 1:50	Earth & Space Science	McLean, Kassandra	*Cosmic Ray Showers in Swift*	Janecky, D. Lavine, A.
1:50 – 2:15	Earth & Space Science	Petersen, Mark	*Vortex Formation and Longevity in Protoplanetary Disks*	Janecky, D. Lavine, A.
2:15 – 2:40	Engineering, Mech	Piotrowicz, Jesse	*Make it Strong, Make it Light: Engineering Optimization in the Design of a Portable Superconducting Magnet*	Banisadr, F. Intrator
2:40 – 3:05	Engineering, Mech	Rudell, Katherine	*Heat Transfer in a Fire*	Banisadr, F. Intrator T.
3:05 – 3:30	Engineering, Mech	Chen, Andy	*Gamma-Ray Channeling*	Banisadr, F. Intrator T.
3:30 – 3:55	Engineering, Mech	Jorenby, Jeff	*Heat Transfer Analysis and Assessment of Kinetics Models for PBX 9501*	Banisadr F. Intrator, T.
3:55 – 4:20	Engineering, Mech	Rudell, Katherine	*Heat Transfer Analysis of Save*	Banisadr, F. Intrator, T.

ORAL PRESENTATIONS
UNM-LA RM. 606

Facilitator: Rainy Jacobsen

Time	Field	Student	Presentation Title	Judges
1:00 – 1:25	Computing	Blount, Michael	*Supercomputing Challenge*	Brown, C. Connor, C.
1:25 – 1:50	Computing	Cheatham, Jesse	*Increasing MCNP5 Calculation Speed by Compiler Optimization*	Brown, C. Connor, C.
1:50 – 2:15	Computing	Conlin, Jeremy	*Temperature Corrections in MCNP*	Brown, C. Connor, C.
2:15 – 2:40	Computing	Funderburk, Max	*The Complete Idiot's Guide to Software Quality Assurance*	Davis, K. Bent, J.
2:40 – 3:05	Computing	Harding, Lee	*Electron Energy-Loss Straggling using Monte Carlo Methods*	Davis, K Bent, J.
3:05 – 3:30	Computing	Kang, Yunghee	*Verification of Telluride Solid Mechanics by The Method of Manufactured Solutions*	Davis, K. Bent, J.
3:30 – 3:55	Computing	Loss, Leandro	*Figure-Ground Discrimination*	Douglas, A. Okhuysen, B.
3:55 – 4:20	Computing	Manzanares, Adam	*Network Analysis Leveraging Protocol Behaviors*	Douglas, A. Okhuysen, B.
4:20 – 4:45	Computing	Russell, Keith	*J2EE Framework Considerations*	Douglas, A. Okhuysen, B.

ORAL PRESENTATIONS
UNM-LA RM. 622

Facilitator: Victor Gehman

Time	Field	Student	Presentation Title	Judges
1:00 – 1:25	Material Science	Maskaly, Karlene	*Computational Study of Interfacial Roughness in 1D Photonic Crystals*	Feng, S. Taccetti, M.
1:25 – 1:50	Materials Science	Mantei, Jason	*Magnetic Determination of the Field-Dependence of Critical Current in Coated Conductors*	Feng, S. Taccetti, M.
1:50 – 2:15	Materials Science	Gagner, Jennifer	*Characterization of Carbon Nanotube Supported Phospholipid Bilayers*	Feng, S. Taccetti, M.
2:15 – 2:40	Materials Science	Collins, Brendan	*Microstructural Response of Preshocked Tantalum and 1018 Steel Subjected to Dynamic Loading*	Feng, S. Taccetti, M.
2:40 – 3:05	Bioscience	Zurek, Agnes	*Novel Membrane Architectures on Self- Assembled Synthetic Materials*	Svensson, R. Hobart, D.
3:05 – 3:30	Bioscience	Gallagher, Kelly	*The Integration of Population Genetic Dynamics and Community Ecology: An Example Using a Coalescent Theoretical Framework and Microbial Genetic Data Collected From In Sit*	Svensson, R. Goddard, G.
3:30 – 3:55	Computing	Walker, Theo	*Waste Compliance and Treatment System*	Kettering, B.
3:55 – 4:20	Bioscience	Rissler, Matt	*Simulating Swarming of Myxococcus Xanthus*	Svensson, R. Goddard, G.
4:20 – 4:45	Bioscience	Weronski, Pawell	*Molecular Dynamics Study of a Small PNA Molecule in a Lipid-Water System*	Hobart, D. Goddard, G.

ORAL PRESENTATIONS
UNM-LA RM. 625

Facilitators: Natalie Trujillo & Severo Martinez

1:00 – 1:25	Physics	Alpizar-Vicente, Ana	*Measurement of Neutron Capture Cross Section of 62Ni in the keV Region*	Macek, B. Foropoulos, J.
1:25 – 1:50	Physics	Hanson, Christina	*Bioassay Sorting of Nanoparticles in a Flow Chamber Place in a Magnetic Gradient*	Macek, B. Foropoulos, J.
1:50 – 2:15	Physics	Hatarik, Robert	*102Pd(n,gamma) Cross-Section Measurement using DANCE*	Macek, B. Foropoulos, J.
2:15 – 2:40	Physics	Libal, Andras	*Charge Separation in Ratcheting Colloid Systems*	Butler, B. Goldman, T.
2:40 – 3:05	Physics	Wetzel, Andrew	*Dark Matter Halo Mergers and Assembly Histories*	Butler, B. Goldman, T.
3:05 – 3:30	Earth & Space Science	Chen, Yan	*Dynamic Reservoir Data Assimilation with Dimension-Reduced Kalman Filters*	Enter, J. Foropoulos, J.
3:30 – 3:55	Earth & Space Science	Corish, Siobhan	*Statistical Evaluation of the Results of a Multi-Parameter Dynamic Rupture Inversion*	Enter, J Foropoulos, J.
3:55 – 4:20	Earth & Space Science	Fleming, Alexandria	*Comparing Stream Embeddedness to Surface and Subsurface Grain Size Distributions in the Northeast and Southwest U.S.*	Enter, J. Foropoulos, J.
4:20 – 4:45	Non-Technical	Hoffman, Andrew	*Psychological Issues in the Study of Physical Security*	Enter, J. Littleton, S.

ORAL PRESENTATIONS
UNM-LA RM. 626

Facilitator: Melissa Robinson

Time	Field	Student	Presentation Title	Judges
1:00 – 1:25	Math	Ketcheson, David	*Inverse Radiation Transport Using Semi-Analytic Gradients*	Jiang, Y. Butler, B.
1:25 – 1:50	Math	Kunsberg, Benjamin	*Identifying Risk Factors in the Uruguayan 2001 Foot and Math Disease Epidemic*	Jiang, Y. Butler, B.
1:50 – 2:15	Chemistry	Jantunen, Kimberly	*Reactivity of (Mono)pentamethylcyclopentadienyl Lutetium (III) Alkyl Complexes*	Porterfield, D. Brown, L.
2:15 – 2:40	Chemistry	Shelley, Jacob	*Using Mesoporous Silica for Surface Assisted Laser Desorption-Ionization Mass Spec*	Porterfield, D. Brown, L.
2:40 – 3:05	Chemistry	Weronski, Pawel	*Monte Carlo Random Sequential Adsorption Model in Studies of Multilayer Thin Film Formation*	Porterfield, D. Brown, L.
3:05 – 3:30	Chemistry	Melfi, Patricia	*Polypyrrolic Systems for Trivalent Uranium*	Porterfield, D. Brown, L.
3:30 – 3:55	Computing	Wacha, Rose	*Synthetic Parallel Application Generation for File System Testing*	George, D. Connor, C.
3:55 – 4:20	Computing	Yasi, Joseph	*Security in J2EE*	George, D. Connor, C.
4:25 – 4:45	Physics	Mihaylov, Miroslav		Foropolous, J.

ORAL PRESENTATIONS

Time	Field	Student	Presentation Title	Judges
1:00 – 1:25	Engineering, Nuc	Bledsoe, Keith	*Application of First-Order Perturbation Theory to Estimate Reactivity Worth in a Critical Assembly*	Brewer, R. Lam, K.
1:25 – 1:50	Engineering, Nuc	Nease, Brian	*Convergence Tests for the Fission Source Distribution in MCNP*	Brewer, R. Lam, K.
1:50 – 2:15	Engineering, Nuc	Pan, Arthur	*Neutronics of a Plutonium Solution as a Function of Temperature*	Brewer, R. Lam, K.
2:15 – 2:40	Engineering, Nuc	Schirmers, Fritz	*Refinement of the Pandemonium Computer Code*	Brewer, R. Lam, K.
2:40 – 3:05	Engineering, Nuc	Solomon, Clell	*Stainless Steel and Polyethylene Thick Shield Calculation Validation of MCNP*	Brewer, R. Lam, K.
3:05 – 3:30	Engineering, Opt	Yellampalle, B.	*Spectral Interferometric Raman Imaging*	Dolliver, C. Taccetti M.
3:30 – 3:55	Engineering, Elec	Larsen, Paul	*Chaos Communications Using Driven Traveling Wave Tube Amplifiers with Delayed Feedback*	Dolliver, C. Taccetti M.
3:55 – 4:20	Engineering, Ch	Lopez, Jacquelyn	*The Automation of the Hydroxide Precipitation Process*	Lam, K. Keaton, R.

UNM-LA RM. 627

Facilitator: Kim Tait