2010 Summer Meeting Assigned Abstracts

Last Name	First Name	Session	Abstract Title	Type	Code	Room	Date	Time	
		SPS Undergraduate Research and Outreach (Posters)		Posters	SUN	Galleria III	7/18/2010	6:00 PM	8:00 PM
Miller	David	SPS Undergraduate Research and Outreach	Can Spatial Skills Training Improve Students' Understanding of Introductory Physics?	Poster	SUN01	Galleria III	7/18/2010	6:00 PM	8:00 PM
Yu	Guofen	SPS Undergraduate Research and Outreach	Simulation of Hyperthermia in Cancer Treatment Using Magnetic Nanoparticles	Poster	SUN02	Galleria III	7/18/2010	6:00 PM	8:00 PM
Lim	Timothy	SPS Undergraduate Research and Outreach (Posters)	Economical Magnetic Field Sensors for Introductory Physics	Poster	SUN03	Galleria III	7/18/2010	6:00 PM	8:00 PM
Pearl	Charles	SPS Undergraduate Research and Outreach (Posters)	Direct and Indirect Approaches to Increasing Conceptual Survey Gains	Poster	SUN04	Galleria III	7/18/2010	6:00 PM	8:00 PM
Taylor	Samantha	SPS Undergraduate Research and Outreach (Posters)	Embedding Children's Physics Learning Opportunities in a Gaming Structure	Poster	SUN05	Galleria III	7/18/2010	6:00 PM	8:00 PM
		Upper Division Laboratories: Ideas, Equipment, and Techniques		Inv/Con	AA	Galleria I	7/19/2010	8:20 AM	10:10 AM
Hudek	Dean	Upper Division Laboratories: Ideas, Equipment, and Techniques	Creating a Sophisticated Single Photon Interference Device for $3K-$5K	Invited	AA01	Galleria I	7/19/2010	8:20 AM	8:50 AM
Masters	Mark	Upper Division Laboratories: Ideas, Equipment, and Techniques	What's a Lab for? A Decade of Continuous Laboratory Revision	Invited	AA02	Galleria I	7/19/2010	8:50 AM	9:20 AM
Dowd	Jason	Upper Division Laboratories: Ideas, Equipment, and Techniques	Assessing and Enhancing Student Learning in the Advanced Physics Lab	Contributed	AA03	Galleria I	7/19/2010	9:20 AM	9:30 AM
Juma	Nasser	Upper Division Laboratories: Ideas, Equipment, and Techniques	Enhancing Students: Understanding of Electronics and Instrumentation Through Capstone Projects	Contributed	AA04	Galleria I	7/19/2010	9:30 AM	9:40 AM

Last Name	First Name	Session	Abstract Title	Type	Code	Room	Date	Time	
Smith	David	Upper Division Laboratories: Ideas, Equipment, and Techniques	Bridging the Gap between Introductory and Upper-Division Electronics Laboratories	Contributed	AA05	Galleria I	7/19/2010	9:40 AM	9:50 AM
Troncalli	Andra	Upper Division Laboratories: Ideas, Equipment, and Techniques	The Advanced Lab: Incorporating Modern Techniques, Exciting Topics, and Mini-Projects	Contributed	AA06	Galleria I	7/19/2010	9:50 AM	10:00 AM
Wick	Kurt	Upper Division Laboratories: Ideas, Equipment, and Techniques	Updating the Digital Electronics Portion of an Advanced Lab Course Using FPGAs	Contributed	AA07	Galleria I	7/19/2010	10:00 AM	10:10 AM
		Physics, Technological Innovation & Careers in the Pacific Northwest I		Invited	AB	Galleria II	7/19/2010	8:20 AM	10:20 AM
Travis	Adrian	Physics, Technological Innovation & Careers in the Pacific Northwest I	Flat Panel Optics	Invited	AB01	Galleria II	7/19/2010	8:20 AM	8:50 AM
McFeeters-Kron	David	Physics, Technological Innovation & Careers in the Pacific Northwest I	Physics and Commercialization ... What Could be Better	Invited	AB02	Galleria II	7/19/2010	8:50 AM	9:20 AM
Kuhn	Kelin	Physics, Technological Innovation & Careers in the Pacific Northwest I	Doodles, Quantum Physics, and Grandma's Email	Invited	AB03	Galleria II	7/19/2010	9:20 AM	9:50 AM
		Using Literature and History to Teach HS Physics		Inv/Con	AC	Galleria III	7/19/2010	8:20 AM	10:20 AM
Reitz	William	Using Literature and History to Teach HS Physics	Seuss Science or Learning Physics Through Children's Literature	Invited	AC01	Galleria III	7/19/2010	8:20 AM	8:50 AM
Hicks	Jim	Using Literature and History to Teach HS Physics	Using Physics Principles to Help Solve Two Literary Landscape Mysteries	Invited	AC02	Galleria III	7/19/2010	8:50 AM	9:20 AM
Greenslade, Jr.	Thomas	Using Literature and History to Teach HS Physics	Electrostatic Toys	Contributed	AC03	Galleria III	7/19/2010	9:20 AM	9:30 AM
Halka	Monica	Using Literature and History to Teach HS Physics	Important News on the Elements of the Periodic Table	Contributed	AC04	Galleria III	7/19/2010	9:30 AM	9:40 AM

Last Name	First Name	Session	Abstract Title	Type	Code	Room	Date	Time	
Hood	Tracy	Using Literature and History to Teach HS Physics	Tapping into the Power of Physics: Impacting Students' Lives	Contributed	AC05	Galleria III	7/19/2010	9:40 AM	9:50 AM
Lincoln	James	Using Literature and History to Teach HS Physics	Noticeable Errors in Artificial Gravity of Rotating Space Stations	Contributed	AC06	Galleria III	7/19/2010	9:50 AM	10:00 AM
Mungan	Carl	Using Literature and History to Teach HS Physics	Movie Physics: Rolling the Black Pearl Over	Contributed	AC07	Galleria III	7/19/2010	10:00 AM	10:10 AM
		PER: Student Reasoning		Contributed	AD	Broadway I/II	7/19/2010	8:20 AM	10:10 AM
Barth-Cohen	Lauren	PER: Student Reasoning	Students' Scientific Explanations and Intuitive Knowledge	Contributed	AD01	Broadway I/II	7/19/2010	8:20 AM	8:30 AM
Brookes	David	PER: Student Reasoning	If Mathematics is the Language of Physics, Does it Have a Grammar?	Contributed	AD02	Broadway I/II	7/19/2010	8:30 AM	8:40 AM
Camp	Paul	PER: Student Reasoning	Development of Scientific Reading Skills - Preliminary Results	Contributed	AD03	Broadway I/II	7/19/2010	8:40 AM	8:50 AM
Frank	Brian	PER: Student Reasoning	Understanding the Nature of Missed Learning Opportunities during Tutorial Instruction	Contributed	AD04	Broadway I/II	7/19/2010	8:50 AM	9:00 AM
Hutchison	Paul	PER: Student Reasoning	What Does Epistemological Priming Look Like?	Contributed	AD05	Broadway I/II	7/19/2010	9:00 AM	9:10 AM
Kaczynski	Adam	PER: Student Reasoning	Analysis of Student Modes of Communication in Intermediate Mechanics Tutorials	Contributed	AD06	Broadway I/II	7/19/2010	9:10 AM	9:20 AM
Kryjevskaia	Mila	PER: Student Reasoning	Investigating Student Reasoning Difficulties with the Reflection of Pulses	Contributed	AD07	Broadway I/II	7/19/2010	9:20 AM	9:30 AM
Matloob Haghani	Mojgan	PER: Student Reasoning	Using a Backward Design Process in Evaluating Students' Reasoning	Contributed	AD08	Broadway I/II	7/19/2010	9:30 AM	9:40 AM
McDonald	Mary	PER: Student Reasoning	How Students Promote and Discourage Each Other's Answer Making	Contributed	AD09	Broadway I/II	7/19/2010	9:40 AM	9:50 AM
Rosenblatt	Rebecca	PER: Student Reasoning	Student Difficulties with Material Science Engineering Concepts: Materials Properties	Contributed	AD10	Broadway I/II	7/19/2010	9:50 AM	10:00 AM

Last Name	First Name	Session	Abstract Title	Type	Code	Room	Date	Time	
Stephanik	Brian	PER: Student Reasoning	Investigating Student Understanding of Classical Analogs of Quantum Concepts	Contributed	AD11	Broadway I/II	7/19/2010	10:00 AM	10:10 AM
		Bridging the Gap I		Panel	AE	Broadway III/IV	7/19/2010	8:20 AM	10:20 AM
Jones	Brian	Bridging the Gap I	Teaching Physics to First Graders: The Little Shop of Physics	Panel	AE01	Broadway III/IV	7/19/2010	8:20 AM	10:20 AM
Reardon	James	Bridging the Gap I	There's Plenty of Room at the Bottom: Pre-High-School Outreach	Panel	AE02	Broadway III/IV	7/19/2010	8:20 AM	10:20 AM
Sievert	Patricia	Bridging the Gap I	So, How Do We Communicate with Children, Teens, the Public?	Panel	AE03	Broadway III/IV	7/19/2010	8:20 AM	10:20 AM
Shropshire	Steve	Bridging the Gap I	How to Talk About Science to Teachers Who Fear Science	Panel	AE04	Broadway III/IV	7/19/2010	8:20 AM	10:20 AM
Senior	Thomas	Bridging the Gap I	Bridging the Gap I	Panel	AE05	Broadway III/IV	7/19/2010	8:20 AM	10:20 AM
		Multiple Models for Mentoring I		Inv/Con	AF	Grand Ballroom II	7/19/2010	8:20 AM	10:20 AM
Whitten	Barbara	Multiple Models for Mentoring I	Why Does Mentoring End?	Invited	AF01	Grand Ballroom II	7/19/2010	8:20 AM	8:50 AM
Hammer	Philip	Multiple Models for Mentoring I	Mentoring Initiatives At AAPT	Invited	AF02	Grand Ballroom II	7/19/2010	8:50 AM	9:20 AM
Olsen	Julia	Multiple Models for Mentoring I	Science and Math Internship Center: A Business/Education Collaboration	Invited	AF03	Grand Ballroom II	7/19/2010	9:20 AM	9:50 AM
Fetters	Marcia	Multiple Models for Mentoring I	Science and Mathematics Teacher Campus Student Groups: Communities of Support	Contributed	AF04	Grand Ballroom II	7/19/2010	9:50 AM	10:00 AM
Fritz	Linda	Multiple Models for Mentoring I	Outcomes of Mutual Mentoring I: Impact of Mutual Mentoring on Research	Contributed	AF05	Grand Ballroom II	7/19/2010	10:00 AM	10:10 AM
Blaha	Cynthia	Multiple Models for Mentoring I	Outcomes of Mutual Mentoring II: Mutual Mentoring Makes Better Mentors	Contributed	AF06	Grand Ballroom II	7/19/2010	10:10 AM	10:20 AM

Last Name	First Name	Session	Abstract Title	Type	Code	Room	Date	Time	
		Online Science Education Resources		Panel	AG	Pavilion East	7/19/2010	8:20 AM	10:20 AM
Lee	Kevin	Online Science Education Resources		Panel	AG01	Pavilion East	7/19/2010	8:20 AM	10:20 AM
Christian	Wolfgang	Online Science Education Resources		Panel	AG02	Pavilion East	7/19/2010	8:20 AM	10:20 AM
Mason	Bruce	Online Science Education Resources		Panel	AG03	Pavilion East	7/19/2010	8:20 AM	10:20 AM
Gangli	Karim	Online Science Education Resources		Panel	AG04	Pavilion East	7/19/2010	8:20 AM	10:20 AM
Steiner	Robert	Online Science Education Resources		Panel	AG05	Pavilion East	7/19/2010	8:20 AM	10:20 AM
		Promoting Diversity in Physics Education		Panel	AH	Pavilion West	7/19/2010	8:20 AM	10:20 AM
Sabella	Mel	Promoting Diversity in Physics Education	Developing an Instructional Approach that Builds on the Resources of the Urban Physics Student	Invited	AH01	Pavilion West	7/19/2010	8:20 AM	10:20 AM
Crouch	Catherine	Promoting Diversity in Physics Education	Teaching Underrepresented Groups with Peer Instruction	Invited	AH02	Pavilion West	7/19/2010	8:20 AM	10:20 AM
Burciaga	Juan	Promoting Diversity in Physics Education	The Role of the NSHP in Promoting Diversity and Inclusion	Invited	AH03	Pavilion West	7/19/2010	8:20 AM	10:20 AM
Norris	Lawrence	Promoting Diversity in Physics Education	Toward Comprehensive Diversity in Physics: From Birth to Retirement	Invited	AH04	Pavilion West	7/19/2010	8:20 AM	10:20 AM
		Biomedical Labs for Advanced Physics		Inv/Con	BA	Galleria I	7/19/2010	1:10 PM	2:20 PM
Wonnell	Steven	Biomedical Labs for Advanced Physics	Understanding Biology with Advanced Physics Lab Experiments	Invited	BA01	Galleria I	7/19/2010	1:10 PM	1:40 PM

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Colton	Thomas	Biomedical Labs for Advanced Physics	Introducing Biophysics In Berkeley's Advanced Lab	Invited	BA02	Galleria I	7/19/2010	1:40 PM	2:10 PM
Lindaas	Steve	Biomedical Labs for Advanced Physics	Designing and Building a Computed Tomography Scanner	Contributed	BA03	Galleria I	7/19/2010	2:10 PM	2:20 PM
		PER: Investigating Classroom Strategies		Contributed	BB	Galleria II	7/19/2010	1:10 PM	3:00 PM
Cheng	Kwan	PER: Investigating Classroom Strategies	Large Scale Assessment of the Introductory Courses: Mechanics	Contributed	BB01	Galleria II	7/19/2010	1:10 PM	1:20 PM
Demaree	Dedra	PER: Investigating Classroom Strategies	PER-Based Introductory Physics Reform at Oregon State University	Contributed	BB02	Galleria II	7/19/2010	1:20 PM	1:30 PM
Franklin	Scott	PER: Investigating Classroom Strategies	Processes of Student Understanding: Standard vs. Remedial Sections	Contributed	BB03	Galleria II	7/19/2010	1:30 PM	1:40 PM
Li	Sissi	PER: Investigating Classroom Strategies	Instructor Facilitation of PI as a Mediator for Student Participation	Contributed	BB04	Galleria II	7/19/2010	1:40 PM	1:50 PM
Samuels	Natan	PER: Investigating Classroom Strategies	A Tool to Aid Instructors and Students to Negotiate Learning Environments	Contributed	BB05	Galleria II	7/19/2010	1:50 PM	2:00 PM
Lin	Yuhfen	PER: Investigating Classroom Strategies	Drawing Out the Expert Learner in Physics Students	Contributed	BB06	Galleria II	7/19/2010	2:00 PM	2:10 PM
Lindsey	Beth	PER: Investigating Classroom Strategies	Using Tutorials with M&I: An Update with Experiences from E&M	Contributed	BB07	Galleria II	7/19/2010	2:10 PM	2:20 PM
Sayre	Eleanor	PER: Investigating Classroom Strategies	Processes of Student Understanding: Traditional vs. Workshop Classes	Contributed	BB08	Galleria II	7/19/2010	2:20 PM	2:30 PM
Thacker	Beth	PER: Investigating Classroom Strategies	Large Scale Assessment of the Introductory Courses: Electricity and Magnetism	Contributed	BB09	Galleria II	7/19/2010	2:30 PM	2:40 PM
Thoms	Brian	PER: Investigating Classroom Strategies	Assessing Introductory Algebra-based Studio Physics at an Urban University	Contributed	BB10	Galleria II	7/19/2010	2:40 PM	2:50 PM
Wang	Jing	PER: Investigating Classroom Strategies	Evaluation of the Inquiry Style Curriculum: Evidence from Retrospective Data	Contributed	BB11	Galleria II	7/19/2010	2:50 PM	3:00 PM

Last Name	First Name	Session	Abstract Title	Type	Code	Room	Date	Time	
		Multiple Models for Mentoring II		Panel	BC	Galleria III	7/19/2010	1:10 PM	3:10 PM
Allen	Patrica	Multiple Models for Mentoring II	Multiple Models for Mentoring II	Panel	BC01	Galleria III	7/19/2010	1:10 PM	3:10 PM
Foster	Tom	Multiple Models for Mentoring II		Panel	BC02	Galleria III	7/19/2010	1:10 PM	3:10 PM
Kramer	Laird	Multiple Models for Mentoring II		Panel	BC03	Galleria III	7/19/2010	1:10 PM	3:10 PM
Layman	John	Multiple Models for Mentoring II		Panel	BC04	Galleria III	7/19/2010	1:10 PM	3:10 PM
Singh	Chandralekha	Multiple Models for Mentoring II		Panel	BC05	Galleria III	7/19/2010	1:10 PM	3:10 PM
		Physics, Technological Innovation & Careers in the Pacific Northwest II		Invited	BD	Broadway I/II	7/19/2010	1:10 PM	3:10 PM
Koch	Tim	Physics, Technological Innovation & Careers in the Pacific Northwest II	Novel Flexible Media Integrated with Transparent Metal Oxide TFT Backplane	Invited	BD01	Broadway I/II	7/19/2010	1:10 PM	1:40 PM
Fister	Jim	Physics, Technological Innovation & Careers in the Pacific Northwest II	One Engineer's Story: Technology in High-Tech	Invited	BD02	Broadway I/II	7/19/2010	1:40 PM	2:10 PM
Martin	Peter	Physics, Technological Innovation & Careers in the Pacific Northwest II	Physics, Technical Innovation, and Commercialization at PNNL	Invited	BD03	Broadway I/II	7/19/2010	2:10 PM	2:40 PM
		Best Practices for Teaching with Technology		Invited	BE	Broadway III/IV	7/19/2010	1:10 PM	3:10 PM
Ezrailson	Cathy	Best Practices for Teaching with Technology	Tools for 21st Century Teaching: Using Digital Libraries, Blogs, Wikis and More	Invited	BE01	Broadway III/IV	7/19/2010	1:10 PM	1:40 PM
Price	Edward	Best Practices for Teaching with Technology	Effectively Using Technology: The Interplay Between Technology, Practices, and Pedagogy	Invited	BE02	Broadway III/IV	7/19/2010	1:40 PM	2:10 PM

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Timberlake	Todd	Best Practices for Teaching with Technology	Using Computer Simulations in Introductory Astronomy	Invited	BE03	Broadway III/IV	7/19/2010	2:10 PM	2:40 PM
Adams	Wendy	Best Practices for Teaching with Technology	PhET Interactive Simulations Student Engagement and Learning	Invited	BE04	Broadway III/IV	7/19/2010	2:40 PM	3:10 PM
		Electric Circuits: From Batteries and Bulbs to Electronic Devices		Invited	BF	Ballroom II	7/19/2010	1:10 PM	3:10 PM
Kautz	Christian	Electric Circuits: From Batteries and Bulbs to Electronic Devices	Identifying and Addressing Student Difficulties with DC and AC Circuits	Invited	BF01	Ballroom II	7/19/2010	1:10 PM	1:40 PM
Sokoloff	David	Electric Circuits: From Batteries and Bulbs to Electronic Devices	Enhancing Student Understanding of Electric Circuit Concepts with Active Learning Strategies Supported by Microcomputer-Based Tools	Invited	BF02	Ballroom II	7/19/2010	1:40 PM	2:10 PM
Stetzer	MacKenzie	Electric Circuits: From Batteries and Bulbs to Electronic Devices	Investigating Student Understanding in an Upper-division Analog Electronics Course	Invited	BF03	Ballroom II	7/19/2010	2:10 PM	2:40 PM
van Kampen	Paul	Electric Circuits: From Batteries and Bulbs to Electronic Devices	Batteries, Bulbs and Beyond: Electric Circuits by Guided Inquiry	Invited	BF04	Ballroom II	7/19/2010	2:40 PM	3:10 PM
		State and National Initiatives and Effects on HS Physics		Invited	BG	Pavilion East	7/19/2010	1:10 PM	3:10 PM
Powell	Bob	State and National Initiatives and Effects on HS Physics	Georgia MSP-funded PTRA Workshops: Getting and Keeping	Invited	BG01	Pavilion East	7/19/2010	1:10 PM	1:40 PM
Moore	Eric	State and National Initiatives and Effects on HS Physics	Maryland TOPPS	Invited	BG02	Pavilion East	7/19/2010	1:40 PM	2:10 PM
Matsler	Karen	State and National Initiatives and Effects on HS Physics	AAPT + PTRA + TEA + TRC = Success	Invited	BG03	Pavilion East	7/19/2010	2:10 PM	2:40 PM
Shropshire	Steve	State and National Initiatives and Effects on HS Physics	AAPT/PTRA Center for Eastern Idaho	Invited	BG04	Pavilion East	7/19/2010	2:40 PM	3:10 PM
		When Scientists Should Step In. Media, Politics, and Science		Panel	BH	Pavilion West	7/19/2010	1:10 PM	3:10 PM

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Bhatia	Peter			Panel	BH01	Pavilion West	7/19/2010	1:10 PM	3:10 PM
Smith	Willie			Panel	BH02	Pavilion West	7/19/2010	1:10 PM	3:10 PM
Barnes	Elaine			Panel	BH03	Pavilion West	7/19/2010	1:10 PM	3:10 PM
Aubrecht II	Gordon			Panel	BH04	Pavilion West	7/19/2010	1:10 PM	3:10 PM
		PIRA Session: The Wonderful World of PIRA		Invited	CA	TBA	7/19/2010	4:30 PM	6:00 PM
Warren	Keith		What Has PIRA Done for You in the Last 24 Years?	Invited	CA01	TBA	7/19/2010	4:30 PM	5:00 PM
Peacock	Zigmund		The History of PIRA According to the Collective General Knowledge	Invited	CA02	TBA	7/19/2010	5:00 PM	5:30 PM
Maiullo	David		Let's Review! PIRA's Past & Current Influence and Future Goals	Invited	CA03	TBA	7/19/2010	5:30 PM	6:00 PM
		Crackerbarrel for PER Solo Faculty		Ckrbrl	CKB01	Broadway I/II	7/19/2010	12:00 PM	1:00 PM
		Crackerbarrel on TYC Guidelines		Ckrbrl	CKB02	Broadway III/IV	7/19/2010	12:00 PM	1:00 PM
		Physics and Society		Contributed	DA	Galleria I	7/19/2010	4:30 PM	5:20 PM
Cadwell	Lou	Physics and Society	Experimental Evidence of Quantum Physics Model of Mind-Brain Interaction	Contributed	DA01	Galleria I	7/19/2010	4:30 PM	4:40 PM
Chow	Celia	Physics and Society	Application of Physics to Environmental Concerns--Part III---Geothermal Energy	Contributed	DA02	Galleria I	7/19/2010	4:40 PM	4:50 PM
Grable	Lisa	Physics and Society	Renewable Energy for Grades 6-12: Activities from The Science House	Contributed	DA03	Galleria I	7/19/2010	4:50 PM	5:00 PM

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Loranz	Daniel	Physics and Society	Starting a Lighter than Air Vehicle Competition at Community College	Contributed	DA04	Galleria I	7/19/2010	5:00 PM	5:10 PM
Mayer	Shannon	Physics and Society	Bridging the Gap between Science And Society: Debating Science Policy	Contributed	DA05	Galleria I	7/19/2010	5:10 PM	5:20 PM
		High School/Middle School		Contributed	DB	Galleria II	7/19/2010	4:30 PM	5:40 PM
Hilliard-Clark	Joyce	High School/Middle School	Photonics Leaders II: Preparing High School Students for the Global Workplace and STEM Experiences.	Contributed	DB01	Galleria II	7/19/2010	4:30 PM	4:40 PM
Huss	Simon	High School/Middle School	Physics in an Active Learning Studio at the Secondary Level	Contributed	DB02	Galleria II	7/19/2010	4:40 PM	4:50 PM
Koenig	Kathleen	High School/Middle School	Developing Scientific Reasoning in Middle School Students	Contributed	DB03	Galleria II	7/19/2010	4:50 PM	5:00 PM
van den Berg	Ed	High School/Middle School	Learning Graphs and Physics with Sensors in Grades 5 - 6	Contributed	DB04	Galleria II	7/19/2010	5:00 PM	5:10 PM
Wadness	Michael	High School/Middle School	Particle Physics Masterclass: Possibility for Student Learning About the Nature of Science?	Contributed	DB05	Galleria II	7/19/2010	5:10 PM	5:20 PM
Zettili	Nouredine	High School/Middle School	Bringing Technology into Physics Classrooms	Contributed	DB06	Galleria II	7/19/2010	5:20 PM	5:30 PM
		Physics Education Research Around the World I		Inv/Con	DC	Galleria III	7/19/2010	4:30 PM	6:00 PM
Yerushalmi	Edit		Thermal Physics Going Soft -- New Approach to Introduce Contemporary Science In High School	Invited	DC01	Galleria III	7/19/2010	4:30 PM	5:00 PM
Bearden	Ian		Maintaining Interest: Retention of 1st year physics students	Invited	DC02	Galleria III	7/19/2010	5:00 PM	5:30 PM
Ishimoto	Michi	Physics Education Research Around the World I	Correlation between FMCE Scores and Mathematics Skills in Japan	Contributed	DC03	Galleria III	7/19/2010	5:30 PM	5:40 PM

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Madrigal-Melcho	Jesús	Physics Education Research Around the World I	Pre-concepts in Electromagnetism of Students in the School of Physics, UAZ, Mexico	Contributed	DC04	Galleria III	7/19/2010	5:40 PM	5:50 PM
Sharma	Manjula	Physics Education Research Around the World I	Exploring Student Understanding of Uncertainty in Measurement	Contributed	DC05	Galleria III	7/19/2010	5:50 PM	6:00 PM
		Teaching with Technology I		Contributed	DD	Broadway I/II	7/19/2010	4:30 PM	6:00 PM
Landau	Rubin	Teaching with Technology I	An eTextBook Providing Blended, Multimodal Access to Computational Physics Curricula	Contributed	DD01	Broadway I/II	7/19/2010	4:30 PM	4:40 PM
Milner-Bolotin	Marina	Teaching with Technology I	Facebook and YouTube in Introductory Project-Based Physics for Architects Course	Contributed	DD02	Broadway I/II	7/19/2010	4:40 PM	4:50 PM
Moser	Brad	Teaching with Technology I	Loudspeaker Line Array Educational Demonstration	Contributed	DD03	Broadway I/II	7/19/2010	4:50 PM	5:00 PM
Ortiz Nieves	Edgardo	Teaching with Technology I	Physvids: The Great Physics Video Contest	Contributed	DD04	Broadway I/II	7/19/2010	5:00 PM	5:10 PM
Cise	John	Teaching with Technology I	Vancouver Olympic Physics and other Physics Applications from the NY Times	Contributed	DD05	Broadway I/II	7/19/2010	5:10 PM	5:20 PM
Stokes	Harold	Teaching with Technology I	Designing an Independent Study Physics Course	Contributed	DD06	Broadway I/II	7/19/2010	5:20 PM	5:30 PM
Trapp	David	Teaching with Technology I	Collegial Video Conferences Enriching High School Physics	Contributed	DD07	Broadway I/II	7/19/2010	5:30 PM	5:40 PM
Urone	Paul	Teaching with Technology I	Using DynamicBooks to Teach Physics to Life-Science Students	Contributed	DD08	Broadway I/II	7/19/2010	5:40 PM	5:50 PM
Willoughby	Shannon	Teaching with Technology I	Testing the Effectiveness of an Online Homework System	Contributed	DD09	Broadway I/II	7/19/2010	5:50 PM	6:00 PM
		Lecture/Classroom I		Contributed	DE	Broadway III/IV	7/19/2010	4:30 PM	6:00 PM
Baker	Blane	Lecture/Classroom I	How Is Range of a Baseball Affected by Performance Enhancement?	Contributed	DE01	Broadway II/IV	7/19/2010	4:30 PM	4:40 PM

Last Name	First Name	Session	Abstract Title	Type	Code	Room	Date	Time	
Beverly	Nancy	Lecture/Classroom I	Reforming Introductory Physics Life Science Curriculum Beyond Biological Context	Contributed	DE02	Broadway III/IV	7/19/2010	4:40 PM	4:50 PM
Blackman	David	Lecture/Classroom I	Quantum Mechanical Aspects of Porous Bilipid Layer: Cation Passive Transport	Contributed	DE03	Broadway III/IV	7/19/2010	4:50 PM	5:00 PM
Burciaga	Juan	Lecture/Classroom I	Iconic Problems in the Undergraduate Physics Curriculum	Contributed	DE04	Broadway III/IV	7/19/2010	5:00 PM	5:10 PM
Feldman	Bernard	Lecture/Classroom I	The Elementary Physics in Four Bridge Failures	Contributed	DE05	Broadway III/IV	7/19/2010	5:10 PM	5:20 PM
Medsker	Larry	Lecture/Classroom I	Thinking-Skills Curriculum and SCALE-UP in Algebra-based Physics	Contributed	DE06	Broadway III/IV	7/19/2010	5:20 PM	5:30 PM
Benmouna	Nawal	Lecture/Classroom I	A Thinking-Skills Curriculum Using SCALE-UP Implemented In Algebra-Based Physics Courses at a Community College	Contributed	DE07	Broadway III/IV	7/19/2010	5:30 PM	5:40 PM
Nanavati	Chaya	Lecture/Classroom I	Implementation of PER Methods at a Research-Intensive University	Contributed	DE08	Broadway III/IV	7/19/2010	5:40 PM	5:50 PM
Rosell	Sharon	Lecture/Classroom I	Atoms Are Fictions of the Chemists	Contributed	DE09	Broadway III/IV	7/19/2010	5:50 PM	6:00 PM
		Teaching Physics Around the World		Invited	DF	Grand Ballroom II	7/19/2010	4:30 PM	6:00 PM
Neumann	Knut	Teaching Physics Around the World	Physics Education in Germany	Invited	DF01	Grand Ballroom II	7/19/2010	4:30 PM	5:00 PM
Wu	NiaLe	Teaching Physics Around the World	Physics Education in Chinese Universities	Invited	DF02	Grand Ballroom II	7/19/2010	5:00 PM	5:30 PM
Huang	Hongbin		A Dialogue-based Teaching Model for Effective Learning	Invited	DF03	Grand Ballroom II	7/19/2010	5:30 PM	6:00 PM
		The Art and Science of Teaching		Invited	DG	Pavilion East	7/19/2010	4:30 PM	6:00 PM

Last Name	First Name	Session	Abstract Title	Type	Code	Room	Date	Time	
Singh	Chandralekha	The Art and Science of Teaching	Facilitating Thinking and Learning in the Physics Classroom	Invited	DG01	Pavilion East	7/19/2010	4:30 PM	5:00 PM
Manogue	Corinne	The Art and Science of Teaching	The Magic of Teaching Middle-Division Physics Students	Invited	DG02	Pavilion East	7/19/2010	5:00 PM	5:30 PM
Hake	Richard	The Art and Science of Teaching	Education Research Employing Operational Definitions Can Enhance the Teaching Art	Invited	DG03	Pavilion East	7/19/2010	5:30 PM	6:00 PM
		Gender		Contributed	DH	Pavilion West	7/19/2010	5:30 PM	6:00 PM
Burnett	Caryn	Gender	Gender Differences in Student Homework Habits	Contributed	DH01	Pavilion West	7/19/2010	5:30 PM	5:40 PM
Kost	Lauren	Gender	Studies of the Gender Gap Across the Introductory Physics Year	Contributed	DH02	Pavilion West	7/19/2010	5:40 PM	5:50 PM
Watkins	Jessica	Gender	Gender, Mental Rotations, and Introductory Physics	Contributed	DH03	Pavilion West	7/19/2010	5:50 PM	6:00 PM
Warren	Warren	APS/DLS Symposium on Laser Physics		Plenary	PL01	Grand Ballroom I	7/19/2010	10:30 AM	12:00 PM
Lakshminarayan	Vasudevan	Lasers and the Eye	Lasers and the Eye	Plenary	PL02	Grand Ballroom I	7/19/2010	3:20 PM	4:20 PM
		Astronomy		Poster	PST1A	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM
Mitchell	Robert		Addendum to Paper on a New Sundial	Poster	PST1A01	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM
Bailey	Janelle		Using the Big Ideas in Cosmology to Teach College Students	Poster	PST1A02	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM
Hintz	Eric		Hands-on Astronomy for GE Students, TAs, and Astronomy Majors	Poster	PST1A03	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM
Jones	Heather	Education in a Planetarium	Researching Effective Methods for Teaching the Phases of the Moon	Poster	PST1A04	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM

Last Name	First Name	Session	Abstract Title	Type	Code	Room	Date	Time	
Powell	Bob		Student Projects at the UWG Observatory	Poster	PST1A05	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM
		Labs/Apparatus		Poster	PST1B	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM
Lim	Timothy	SPS Undergraduate Research and Outreach (Posters)	Economical Magnetic Field Sensors for Introductory Physics	Poster	PST1B01	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM
Criado	Carlos		A Simple Method to Visualize and Calculate the Angle Rotated by a Foucault Pendulum	Poster	PST1B02	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM
Berlinghieri	Joel		Quantitative Study of Faraday's and Lenz's Law	Poster	PST1B03	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM
Masters	Mark		Dielectric Constants and the Parallel Plate Capacitor: Doing It Right!	Poster	PST1B04	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM
Pantaleone	James		The Effective Mass of a Ball in the Air	Poster	PST1B05	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM
Schuster	David		What Do Students Get Out of Advanced Laboratory Experiences?	Poster	PST1B06	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM
White	James		Using Campus Fiber Networks in a Speed-of-light Lab	Poster	PST1B07	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM
		Physics Education Research I		Poster	PST1C	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM
Adams	Wendy		Development of a Faculty Perceptions Survey	Poster	PST1C01	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM
Bowen	Mark		Epistemological Effect of Assessment Style in Introductory Physics	Poster	PST1C02	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM
Carmichael	Adrian		Effects of Temporal Order of Physical and Virtual Activities	Poster	PST1C03	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM
Chini	Jacquelyn		When Would Students Use Physical or Virtual Data?	Poster	PST1C04	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM

Last Name	First Name	Session	Abstract Title	Type	Code	Room	Date	Time	
Dancy	Melissa		Motivations to Use or Not Use Research-Based Strategies	Poster	PST1C05	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM
de la Garza	Jorge		Assessing Students' Attitudes in a College Physics Modeling Course	Poster	PST1C06	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM
Dowd	Jason		Understanding Confusion: Is it as Bad as it Seems?	Poster	PST1C07	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM
Finley	James		Is Explanation Enough to Assess Student Understanding?	Poster	PST1C08	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM
Frank	Brian		Describing Collaborative Activity in Terms of Substantive and Interactional Constraints	Poster	PST1C09	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM
Gire	Elizabeth		Thinking about Representational Fluency in Terms of Epistemic Games	Poster	PST1C10	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM
Henderson	Charles		The Relationship Between Instructor and Situational Characteristics and the use of Research-based Instructional Strategies in Introductory Physics	Poster	PST1C11	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM
Hutchison	Paul		What Does Epistemological Priming Look Like?	Poster	PST1C12	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM
Kost	Lauren		The Impact of Self-Efficacy in The Introductory Physics Year	Poster	PST1C13	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM
Madrigal-Melcho	Jesús		Lexical Availability for Measuring Growth in Conceptual Knowledge of Electromagnetism	Poster	PST1C14	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM
Matloob Haghani	Mojgan		A Protocol for Evaluating Meaningful Understanding	Poster	PST1C15	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM
McDonald	Mary		How Students Promote and Discourage Each Other's Answer Making	Poster	PST1C16	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM
McKagan	Sarah		Using the PER User's Guide and Adopting/Adapting Course Materials	Poster	PST1C17	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM

Last Name	First Name	Session	Abstract Title	Type	Code	Room	Date	Time	
Nguyen	Dong-Hai		Longitudinal Development of Students' Representational Skills in Introductory Physics	Poster	PST1C18	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM
Paul	Cassandra		Important Types of Instructor-Student Interactions for Student Achievement in Reformed Courses	Poster	PST1C19	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM
Pereyra	María		A Study of Knowledge-Based Inferences in Comprehension of Physics Problems	Poster	PST1C20	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM
Rodriguez	Idaykis		Becoming a Physics Expert: A Qualitative Interview Study	Poster	PST1C21	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM
Sawtelle	Vashti		Predicting Success from Sources of Self-Efficacy: A Gender Study	Poster	PST1C22	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM
Sawtelle	Vashti		Positive Impacts of Modeling Instruction on Self-Efficacy	Poster	PST1C23	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM
Shubert	Christopher		Analyzing Reflective Interviews: Naturally Classroom Contextualized Epistemological Resources	Poster	PST1C24	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM
Turpen	Chandra		Faculty Interpretations of Instructional Strategies: A National Study	Poster	PST1C25	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM
Burnett	Caryn		Gender Differences in Students' Reported Homework Habits	Poster	PST1C26	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM
Dietz	Richard		Exploring Gender Differences in Force Concept Inventory Results through Factor Analysis	Poster	PST1C27	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM
		Teacher Training/Enhancement		Poster	PST1D	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM
Rowley	Eric		The Coupled-Inquiry Cycle: Effective Inquiry for Physics Students	Poster	PST1D01	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM
Bartley	Jessica		Developing and Assessing University Students' Communication Skills Through Teaching Physics	Poster	PST1D02	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM
Endorf	Robert		Physics by Inquiry Programs for In-service K-5 and 5-12 Teachers	Poster	PST1D03	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM

Last Name	First Name	Session	Abstract Title	Type	Code	Room	Date	Time	
Kittleson	Trevor		Profiling Iowa's High School Physics Teachers	Poster	PST1D04	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM
Morgan	Jeffrey		What Constitutes Effective Instruction? Views of High School Physics Teachers	Poster	PST1D05	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM
Mzoughi	Taha		Kennesaw State University's MAT in Physics	Poster	PST1D06	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM
O'Kuma	Thomas		ATE Project for Physics Faculty	Poster	PST1D07	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM
Park	Hyun-Jung		Recognition Investigation of Physics and Chemistry Teachers on Electrodes in Galvanic Cell	Poster	PST1D08	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM
Ramírez Díaz	Mario Humberto		The On-line Doctorate in Physics Education: An Experience of Teachers Training	Poster	PST1D09	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM
Singh	Chandralekha		Connecting Pivotal Concepts in K-12 Science Standards to Research in Physics Education	Poster	PST1D10	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM
van Zee	Emily		Physics and Literacy Learning in a Course for Prospective Teachers	Poster	PST1D11	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM
		Pre-College		Poster	PST1E	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM
Bean	James		GEONS: Geomagnetic Events Observation Network by Students	Poster	PST1E01	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM
Caldwell	Nathaniel		Interactive Tutorial for Developing Scientific Reasoning	Poster	PST1E02	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM
Faleski	Michael		The Physics Bowl: A Contest for High Schools	Poster	PST1E03	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM
Kim	Jongwon		Improving Student's Understanding on Optical Density	Poster	PST1E04	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM
Macaluso	John		GK-12 at Brown University: An Inquiry-Based Approach to Physics Education	Poster	PST1E05	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM

Last Name	First Name	Session	Abstract Title	Type	Code	Room	Date	Time	
Parent	Terry		Integration of THEMIS-GEONS Users Guide into Middle School GEMS Sun-Earth Curriculum	Poster	PST1E06	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM
Ferris	Pamella		Now Even Middle School Teachers Can Teach Spectroscopy!	Poster	PST1E07	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM
Ferris	Pamella		Investigating the Electromagnetic Spectrum: ROYGBIV and Beyond	Poster	PST1E08	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM
Gilchrist	Pamela		Hybrid Optics and Photonics Program for High School Students and Teachers	Poster	PST1E09	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM
Hofslund	Joel		The Physics Van Program: Supporting the Needs of Chicago Area Physics Teachers	Poster	PST1E10	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM
Huss	Simon		Active Learning Studio Physics Classroom Design for Secondary Education	Poster	PST1E11	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM
Luzader	Stephen		Experiments in Solar and Wind Power	Poster	PST1E12	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM
Radoff	Jennifer		The Beginnings of Energy in Third Graders' Reasoning	Poster	PST1E13	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM
Smith	Leonard		Partners in Science Program: Enriching Science Teaching Through Research	Poster	PST1E14	Exhibit Hall	7/19/2010	7:30 PM	9:00 PM
Clark Blickenstaf	Jacob		Welcome to the Department. Lets Do Some Math.	Poster	PST2A08	Exhibit Hall	7/19/2010	9:20 PM	10:50 PM
Price	Allen		DNA Flow Stretching for Undergraduates	Poster	PST2D02	Exhibit Hall	7/19/2010	9:20 PM	10:50 PM
Carter	Tom		Clicker Question Exchange for Introductory Physics Classes	Poster	TYC01	TYC Resource Room	7/19/2010	9:00 AM	10:30 PM
Desbien	Dwain		Rockets in the Introductory Physics Classroom	Poster	TYC02	TYC Resource Room	7/19/2010	9:00 AM	10:30 PM
Faleski	Michael		A Free Body Diagram Activity Using Connected Moving Masses	Poster	TYC03	TYC Resource Room	7/19/2010	9:00 AM	10:30 PM

Last Name	First Name	Session	Abstract Title	Type	Code	Room	Date	Time	
Hogan	William		Using Ranking Tasks to Convince Students that Normal Force is NOT Always Equal to Weight	Poster	TYC04	TYC Resource Room	7/19/2010	9:00 AM	10:30 PM
O'Kuma	Thomas		Prescriptive Analysis Integral Techniques for Introductory Physics	Poster	TYC05	TYC Resource Room	7/19/2010	9:00 AM	10:30 PM
Savrda	Sherry		SCC Advance Program for STEM Majors	Poster	TYC06	TYC Resource Room	7/19/2010	9:00 AM	10:30 PM
Savrda	Sherry		Effective Refraction Demonstration for Classroom Viewing	Poster	TYC07	TYC Resource Room	7/19/2010	9:00 AM	10:30 PM
Schultz	Scott		Classroom Investigation of the Physics of Giant Swings	Poster	TYC08	TYC Resource Room	7/19/2010	9:00 AM	10:30 PM
Weaver	David		I did WHAT???	Poster	TYC09	TYC Resource Room	7/19/2010	9:00 AM	10:30 PM
		ALPhA Session: Crackerbarrel for Advanced Laboratory Personnel		Ckrbrl	CKB03	Galleria I	7/20/2010	12:15 PM	1:15 PM
		Crackerbarrel on Professional Concerns for High School Teachers		Ckrbrl	CKB04	Galleria II	7/20/2010	12:15 PM	1:15 PM
		Crackerbarrel for PER Graduate Students		Ckrbrl	CKB05	Galleria III	7/20/2010	12:15 PM	1:15 PM
		Teaching with Technology II		Contributed	EA	Galleria II	7/20/2010	8:20 AM	10:00 AM
Amiri	Farhang	Teaching with Technology II	Using Camtasia and PC Tablets in Creating Lecture Notes	Contributed	EA01	Galleria II	7/20/2010	8:20 AM	8:30 AM
Polak	Jeffrey	Teaching with Technology II	Implementing VPython Tutorial Videos in Matter and Interactions Labs	Contributed	EA02	Galleria II	7/20/2010	8:30 AM	8:40 AM
Caballero	Marcos	Teaching with Technology II	Developing and Deploying Computational Exercises in Introductory Physics	Contributed	EA03	Galleria II	7/20/2010	8:40 AM	8:50 AM

Last Name	First Name	Session	Abstract Title	Type	Code	Room	Date	Time	
Chasteen	Stephanie	Teaching with Technology II	An Inside Look: Practical Strategies for Personal Response Systems (Clickers)	Contributed	EA04	Galleria II	7/20/2010	8:50 AM	9:00 AM
Gallis	Michael	Teaching with Technology II	Animations for Physics and Astronomy Project at Penn State Schuylkill	Contributed	EA05	Galleria II	7/20/2010	9:00 AM	9:10 AM
Hall	Stephen	Teaching with Technology II	Implementing Active-engagement Strategies in a Large Introductory Optics Course	Contributed	EA06	Galleria II	7/20/2010	9:10 AM	9:20 AM
Hoeling	Barbara	Teaching with Technology II	Interactive Online Optics Module for the College Physics Course	Contributed	EA07	Galleria II	7/20/2010	9:20 AM	9:30 AM
Holton	Brian	Teaching with Technology II	Effectiveness of an Active Web-based Tutorial in Introductory Physics	Contributed	EA08	Galleria II	7/20/2010	9:30 AM	9:40 AM
Ingram	Dale	Teaching with Technology II	Sharing Large-Project Science Data with Students via the Web	Contributed	EA09	Galleria II	7/20/2010	9:40 AM	9:50 AM
Keeports	David	Teaching with Technology II	Advanced Physics Classroom Applications of Music Production Software	Contributed	EA10	Galleria II	7/20/2010	9:50 AM	10:00 AM
		Once a TIR Always a TIR		Inv/Con	EB	Galleria III	7/20/2010	8:20 AM	10:20 AM
Momsen	Ellen	Once a TIR Always a TIR	From the Physics Classroom to the College of Engineering	Invited	EB01	Galleria III	7/20/2010	8:20 AM	8:50 AM
Stauch	Nancy	Once a TIR Always a TIR	Once a TIR Always a TIR	Invited	EB02	Galleria III	7/20/2010	8:50 AM	9:20 AM
Anderson	Jon	Once a TIR Always a TIR	The TIR as the Pump for the Pipeline	Contributed	EB03	Galleria III	7/20/2010	9:20 AM	9:30 AM
Cooke	Sharon	Once a TIR Always a TIR	How a TIR Survived Planning a Physics Conference	Contributed	EB04	Galleria III	7/20/2010	9:30 AM	9:40 AM
Crenshaw	Diane	Once a TIR Always a TIR	A Reform Model for LA and TA Weekly Lab Preparation	Contributed	EB05	Galleria III	7/20/2010	9:40 AM	9:50 AM
Olsen	Steven	Once a TIR Always a TIR	Increasing the Responsibilities of Experienced Learning Assistants	Contributed	EB06	Galleria III	7/20/2010	9:50 AM	10:00 AM

Last Name	First Name	Session	Abstract Title	Type	Code	Room	Date	Time	
		Action Research in the High School Classroom		Invited	EC	Broadway I/II	7/20/2010	8:20 AM	10:20 AM
DiLoreto	Angie	Action Research in the High School Classroom	Implementing Physics First District-wide in 8th Grade	Invited	EC01	Broadway I/II	7/20/2010	8:20 AM	8:50 AM
Hill	Bradford	Action Research in the High School Classroom	Reflections on Seven Years of Experimenting with Lesson Study	Invited	EC02	Broadway I/II	7/20/2010	8:50 AM	9:20 AM
D'Amato	Chris	Action Research in the High School Classroom	Choose Your Own Grade: Practices and Results in College-Prep Physics	Invited	EC03	Broadway I/II	7/20/2010	9:20 AM	9:50 AM
Kralovich	Chuck	Action Research in the High School Classroom	Using Research to Improve Student Learning In High School Physics	Invited	EC04	Broadway I/II	7/20/2010	9:50 AM	10:20 AM
		An Interactive Guide to the Paradigms in Physics Programs		Panel	ED	Broadway III/IV	7/20/2010	8:20 AM	10:20 AM
McIntyre	David	An Interactive Guide to the Paradigms in Physics Programs	Quantum Mechanics in the Paradigms in Physics Curriculum	Panel	ED01	Broadway III/IV	7/20/2010	8:20 AM	10:20 AM
Roundy	David	An Interactive Guide to the Paradigms in Physics Programs	Energy and Entropy and More	Panel	ED02	Broadway III/IV	7/20/2010	8:20 AM	10:20 AM
Gire	Elizabeth	An Interactive Guide to the Paradigms in Physics Programs	Electricity & Magnetism in the Paradigms	Panel	ED03	Broadway III/IV	7/20/2010	8:20 AM	10:20 AM
van Zee	Emily	An Interactive Guide to the Paradigms in Physics Programs	Narrative Interpretations of Ways of Speaking during Physics Paradigm Discussions	Panel	ED04	Broadway III/IV	7/20/2010	8:20 AM	10:20 AM
Tate	Janet	An Interactive Guide to the Paradigms in Physics Programs	Waves and Oscillations in the Paradigms Curriculum	Panel	ED05	Broadway III/IV	7/20/2010	8:20 AM	10:20 AM
Pollock	Steven	An Interactive Guide to the Paradigms in Physics Programs	An Outsider's Perspectives on Paradigms	Panel	ED06	Broadway III/IV	7/20/2010	8:20 AM	10:20 AM
Dray	Tevian	An Interactive Guide to the Paradigms in Physics Programs	Bridging the Gap Between Lower-Division Mathematics and Middle-Division Physics	Panel	ED07	Broadway III/IV	7/20/2010	8:20 AM	10:20 AM

Last Name	First Name	Session	Abstract Title	Type	Code	Room	Date	Time	
		Importance of Mentoring and Professional Development to Increase Diversity in Graduate Education		Panel	EE	Grand Ballroom II	7/20/2010	8:20 AM	10:20 AM
Burger	Arnold	Importance of Mentoring and Professional Development to Increase Diversity in Graduate Education	The Fisk/Vanderbilt Masters-to-PhD Bridge Program	Panel	EE01	Grand Ballroom II	7/20/2010	8:20 AM	10:20 AM
Jones	Barbara	Importance of Mentoring and Professional Development to Increase Diversity in Graduate Education	APS/IBM Research Program for Undergraduate Women: CSWP, IBM, and Diversity	Panel	EE02	Grand Ballroom II	7/20/2010	8:20 AM	10:20 AM
Rockward	Willie	Importance of Mentoring and Professional Development to Increase Diversity in Graduate Education	The Importance of Diversity and Inclusiveness in Physics	Panel	EE03	Grand Ballroom II	7/20/2010	8:20 AM	10:20 AM
		What is the Next Big Thing? Social Networking and Beyond		Panel	EF	Pavilion East	7/20/2010	8:20 AM	10:20 AM
Ouellette	Jennifer		Brave New World: Blogging and Beyond	Panel	EF01	Pavilion East	7/20/2010	8:20 AM	10:20 AM
Ashbran	Meredith		Social Networking Among Teachers to Enhance Curriculum	Panel	EF02	Pavilion East	7/20/2010	8:20 AM	10:20 AM
Chasteen	Stephanie		Facing Facebook: Social Media in and out of the Classroom	Panel	EF03	Pavilion East	7/20/2010	8:20 AM	10:20 AM
Schwab	Tracy		Society of Physics Students and Web 2.0: Strategies and Successes	Panel	EF04	Pavilion East	7/20/2010	8:20 AM	10:20 AM
		Problem Solving: A Lever for Conceptual Change		Panel	EG	Galleria I	7/20/2010	8:20 AM	10:20 AM
Maloney	David	Problem Solving: A Lever for Conceptual Change	Problem Solving Heuristics and Conceptual Understanding	Panel	EG01	Galleria I	7/20/2010	8:20 AM	10:20 AM

Last Name	First Name	Session	Abstract Title	Type	Code	Room	Date	Time	
Yerushalmi	Edit	Problem Solving: A Lever for Conceptual Change	Diagnosing Problem Solutions -- What Can Students Do and How Does It Help Them?	Panel	EG02	Galleria I	7/20/2010	8:20 AM	10:20 AM
Harper	Kathleen	Problem Solving: A Lever for Conceptual Change	Novices and Experts: The Twain do Meet in Classrooms	Panel	EG03	Galleria I	7/20/2010	8:20 AM	10:20 AM
Rebello	N. Sanjay	Problem Solving: A Lever for Conceptual Change	Can Problem Solving in Physics Facilitate Conceptual Change in Mathematics?	Panel	EG04	Galleria I	7/20/2010	8:20 AM	10:20 AM
		Keeping it Real: How Do We Engage in Authentic Assessment in the Physics Classroom		Contributed	FA	Galleria I	7/20/2010	1:20 PM	1:50 PM
Ansari	Fariba	Keeping it Real: How Do We Engage in Authentic Assessment in the Physics Classroom	A Different Approach to Students' Performance	Contributed	FA01	Galleria I	7/20/2010	1:20 PM	1:30 PM
Mateycik	Frances	Keeping it Real: How Do We Engage in Authentic Assessment in the Physics Classroom	Assessing Compare and Contrast Activities Integrated In College Algebra-Based Physics	Contributed	FA02	Galleria I	7/20/2010	1:30 PM	1:40 PM
Turley	R. Steven	Keeping it Real: How Do We Engage in Authentic Assessment in the Physics Classroom	Calibrated Peer Review in Modern Physics and Honors Classes	Contributed	FA03	Galleria I	7/20/2010	1:40 PM	1:50 PM
		Video Analysis		Contributed	FB	Galleria II	7/20/2010	1:20 PM	2:10 PM
Antimirova	Tetyana	Video Analysis	Video Analysis in Large Introductory Physics Courses	Contributed	FB01	Galleria II	7/20/2010	1:20 PM	1:30 PM
Cooney	Patrick	Video Analysis	LivePhoto Physics: The Impact of Video-Analysis Activities on Learning*	Contributed	FB02	Galleria II	7/20/2010	1:30 PM	1:40 PM
Hall	Jonathan	Video Analysis	Video Analysis: Model of a Collapsing Star et alii	Contributed	FB03	Galleria II	7/20/2010	1:40 PM	1:50 PM
Hong	Yuanjia	Video Analysis	Using Digital Assisted Analysis in Teaching Motion	Contributed	FB04	Galleria II	7/20/2010	1:50 PM	2:00 PM

Last Name	First Name	Session	Abstract Title	Type	Code	Room	Date	Time	
Spero	David	Video Analysis	Computer-Based Video/Audio Analysis in Physics: Understanding the Doppler Effect	Contributed	FB05	Galleria II	7/20/2010	2:00 PM	2:10 PM
		Labs/Apparatus		Contributed	FC	Galleria III	7/20/2010	1:20 PM	2:30 PM
Corpuz	Edgar	Labs/Apparatus	Transfer of Learning in the Context of an Inquiry-Based General Physics Laboratory	Contributed	FC01	Galleria III	7/20/2010	1:20 PM	1:30 PM
Galli	John	Labs/Apparatus	Atmospheric Pressure in a Partially Filled Inverted Glass of Water	Contributed	FC02	Galleria III	7/20/2010	1:30 PM	1:40 PM
Grennell	Drew	Labs/Apparatus	Promoting Metacognition in Introductory Calculus-based Physics Labs	Contributed	FC03	Galleria III	7/20/2010	1:40 PM	1:50 PM
Judson	Bruce	Labs/Apparatus	Cheap Physics	Contributed	FC04	Galleria III	7/20/2010	1:50 PM	2:00 PM
Pillay	Seshini	Labs/Apparatus	Large Scale Assessment of Introductory Physics Courses: Laboratory Development	Contributed	FC05	Galleria III	7/20/2010	2:00 PM	2:10 PM
Rowland	S. Clark	Labs/Apparatus	The Laser Level in Introductory Optics Labs	Contributed	FC06	Galleria III	7/20/2010	2:10 PM	2:20 PM
Worland	Tandy	Labs/Apparatus	Simple Demonstrations with Inexpensive Violet Laser Pointers	Contributed	FC07	Galleria III	7/20/2010	2:20 PM	2:30 PM
		PER: Topical Understanding and Attitudes		Contributed	FD	Broadway I/II	7/20/2010	1:20 PM	2:30 PM
Emerson	Anne	PER: Topical Understanding and Attitudes	Embracing Confusion: Students' Attitudes toward Confusion for Model-based Inquiry	Contributed	FD01	Broadway I/II	7/20/2010	1:20 PM	1:30 PM
Gray	Kara	PER: Topical Understanding and Attitudes	Bridging the Gap Between Science Education and PER: Formative Assessment	Contributed	FD02	Broadway I/II	7/20/2010	1:30 PM	1:40 PM
Hawkins	Jeffrey	PER: Topical Understanding and Attitudes	Students' Responses to Different Representations of a Vector Addition Question	Contributed	FD03	Broadway I/II	7/20/2010	1:40 PM	1:50 PM
Huang	Xiang	PER: Topical Understanding and Attitudes	Helping Students Use Reflective Writing More Effectively	Contributed	FD04	Broadway I/II	7/20/2010	1:50 PM	2:00 PM

Last Name	First Name	Session	Abstract Title	Type	Code	Room	Date	Time	
Lary	Nathaniel	PER: Topical Understanding and Attitudes	Measuring Conceptual Change : Data-driven model of Gains and Losses	Contributed	FD05	Broadway I/II	7/20/2010	2:00 PM	2:10 PM
Pritchard	David	PER: Topical Understanding and Attitudes	What do Seniors Remember from Freshman Physics?	Contributed	FD06	Broadway I/II	7/20/2010	2:10 PM	2:20 PM
Shubert	Christopher	PER: Topical Understanding and Attitudes	Achieving Epistemological Closeness: Integrated Classroom Context through Reflective Interviews	Contributed	FD07	Broadway I/II	7/20/2010	2:20 PM	2:30 PM
		Interactive Lecture Demonstrations: Physics Suite Materials that Enhance Learning in Lecture		Inv/Con	FE	Broadway III/IV	7/20/2010	1:20 PM	2:50 PM
Laws	Priscilla	Interactive Lecture Demonstrations: Physics Suite Materials that Enhance Learning in Lecture	Active Learning in Lecture, Lab and Workshop/Studio Environments Using ILDs	Invited	FE01	Broadway III/IV	7/20/2010	1:20 PM	1:50 PM
Sokoloff	David	Interactive Lecture Demonstrations: Physics Suite Materials that Enhance Learning in Lecture	Interactive Lecture Demonstrations Using Personal Response Systems (Clickers)	Contributed	FE03	Broadway III/IV	7/20/2010	1:50 PM	2:00 PM
Teese	Robert	Interactive Lecture Demonstrations: Physics Suite Materials that Enhance Learning in Lecture	LivePhoto Projectile Motion ILD	Contributed	FE04	Broadway III/IV	7/20/2010	2:00 PM	2:10 PM
Deardorff	Duane	Interactive Lecture Demonstrations: Physics Suite Materials that Enhance Learning in Lecture	The Art of Teaching Physics with Juggling and Balance	Contributed	FE05	Broadway III/IV	7/20/2010	2:10 PM	2:20 PM
		Interdisciplinary Success Stories: Team Teaching		Inv/Con	FF	Grand Ballroom II	7/20/2010	1:20 PM	2:30 PM
Mader	Jan	Interdisciplinary Success Stories: Team Teaching	War Fair: Integrating English, Mathematics, Science and History	Invited	FF01	Grand Ballroom II	7/20/2010	1:20 PM	1:50 PM
Willis	Maxine	Interdisciplinary Success Stories: Team Teaching	Team Teaching AP Physics and Calculus in the Workshop Mode	Invited	FF02	Grand Ballroom II	7/20/2010	1:50 PM	2:20 PM

Last Name	First Name	Session	Abstract Title	Type	Code	Room	Date	Time	
Shurtz	Robert	Interdisciplinary Success Stories: Team Teaching	Fizzcalc: An Integrated AP Physics C and AP Calculus BC Course	Contributed	FF03	Grand Ballroom II	7/20/2010	2:20 PM	2:30 PM
		Lecture/Classroom II		Contributed	FG	Pavilion East	7/20/2010	1:20 PM	2:50 PM
Schuster	David	Lecture/Classroom II	Visible PCK: An Observational Approach to the Concept of Image	Contributed	FG01	Pavilion East	7/20/2010	1:20 PM	1:30 PM
Smith	David	Lecture/Classroom II	Integrating EFFECTs into a Physics Course	Contributed	FG02	Pavilion East	7/20/2010	1:30 PM	1:40 PM
Taibu	Rex	Lecture/Classroom II	Visible PCK: A Theoretical Approach to the Concept of Image	Contributed	FG03	Pavilion East	7/20/2010	1:40 PM	1:50 PM
Shimoyama	Hiro	Lecture/Classroom II	How We Teach Students Who Don't Have Math Background	Contributed	FG04	Pavilion East	7/20/2010	1:50 PM	2:00 PM
Undreiu	Adriana	Lecture/Classroom II	Conflict and Resolution: As Students Attempt Ray Construction Optics Problems	Contributed	FG05	Pavilion East	7/20/2010	2:00 PM	2:10 PM
Van Ness	Grace	Lecture/Classroom II	Medical Physics: An Interdisciplinary Algebra-Based Physics Elective Course Emphasizing Contemporary Medical Technologies	Contributed	FG06	Pavilion East	7/20/2010	2:10 PM	2:20 PM
West	Keith	Lecture/Classroom II	Large Scale Assessment of the Introductory Courses: Lecture/Lab Integration	Contributed	FG07	Pavilion East	7/20/2010	2:20 PM	2:30 PM
Zeng	Liang	Lecture/Classroom II	Illustrations of Sound Standing Waves in Air Columns in Introductory Physics Textbooks	Contributed	FG08	Pavilion East	7/20/2010	2:30 PM	2:40 PM
Schunicht	Shannon	Lecture/Classroom II	Formula Recollection Made Easy Through a WORLDLY Recognized Mnemonic Technique	Contributed	FG09	Pavilion East	7/20/2010	2:40 PM	2:50 PM
		Research on Teaching Assistants and Learning Assistants		Invited	FH	Pavilion West	7/20/2010	1:20 PM	2:50 PM
Close	Hunter	Research on Teaching Assistants and Learning Assistants	Cultivating Concern with Others: Thinking as the Root of Teacher Identity	Invited	FH01	Pavilion West	7/20/2010	1:20 PM	1:50 PM

Last Name	First Name	Session	Abstract Title	Type	Code	Room	Date	Time	
Goertzen	Renee Michelle	Research on Teaching Assistants and Learning Assistants	A New Perspective on TAs: Respecting TAs' Beliefs and Experiences	Invited	FH02	Pavilion West	7/20/2010	1:50 PM	2:20 PM
Pollock	Steven	Research on Teaching Assistants and Learning Assistants	The Colorado LA Model: Impacts and Outcomes	Invited	FH03	Pavilion West	7/20/2010	2:20 PM	2:50 PM
		Simulated Learning: Using Simulations to Teach Physics		Contributed	FI	Salon Ballroom II	7/20/2010	1:50 PM	2:50 PM
Chini	Jacquelyn	Simulated Learning: Using Simulations to Teach Physics	How Physical and Virtual Experiments Influence Students' Understanding of Pulleys	Contributed	FI01	Salon Ballroom II	7/20/2010	1:50 PM	2:00 PM
Duffy	Michael	Simulated Learning: Using Simulations to Teach Physics	Dynamo: A Simulation Editor and Delivery Program for Classical Mechanics	Contributed	FI02	Salon Ballroom II	7/20/2010	2:00 PM	2:10 PM
Johnson	Andy	Simulated Learning: Using Simulations to Teach Physics	Student Thinking on Atomic Structure with the Atom Builder Sim	Contributed	FI03	Salon Ballroom II	7/20/2010	2:10 PM	2:20 PM
Podolefsky	Noah	Simulated Learning: Using Simulations to Teach Physics	Complexity of Computer Simulations: Implications for Sim Design and Learning	Contributed	FI04	Salon Ballroom II	7/20/2010	2:20 PM	2:30 PM
WEE	Loo Kang	Simulated Learning? Using Simulations to Teach Physics	Physics Educators as Designers of Simulation Using Easy Java Simulation	Contributed	FI05	Salon Ballroom II	7/20/2010	2:30 PM	2:40 PM
		Teacher Training/Enhancement		Contributed	GA	Galleria I	7/20/2010	3:00 PM	4:40 PM
Atkins	Leslie	Teacher Training/Enhancement	Student-Henerated Scientific Inquiry	Contributed	GA01	Galleria I	7/20/2010	3:00 PM	3:10 PM
Churukian	Alice	Teacher Training/Enhancement	SHAPE-ing the Future: A Conference for High School Physics Teachers	Contributed	GA02	Galleria I	7/20/2010	3:10 PM	3:20 PM
Harlow	Danielle	Teacher Training/Enhancement	Learning About Teaching & Learning in PET	Contributed	GA03	Galleria I	7/20/2010	3:20 PM	3:30 PM
Kittleson	Trevor	Teacher Training/Enhancement	Profiling Iowa's High School Physics Teachers	Contributed	GA04	Galleria I	7/20/2010	3:30 PM	3:40 PM
Meyer	Michael	Teacher Training/Enhancement	Formative TA Evaluations by Online Survey	Contributed	GA05	Galleria I	7/20/2010	3:40 PM	3:50 PM

Last Name	First Name	Session	Abstract Title	Type	Code	Room	Date	Time	
Morgan	Jeffrey	Teacher Training/Enhancement	What Constitutes Effective Instruction? Views of High School Physics Teachers	Contributed	GA06	Galleria I	7/20/2010	3:50 PM	4:00 PM
Rowley	Eric	Teacher Training/Enhancement	Tracking the Development of Scientific Reasoning Abilities in Pre-service Teachers	Contributed	GA07	Galleria I	7/20/2010	4:00 PM	4:10 PM
Sabella	Mel	Teacher Training/Enhancement	The Development of a Pedagogical Content Knowledge (PCK) Course for Chicago Area Teachers	Contributed	GA08	Galleria I	7/20/2010	4:10 PM	4:20 PM
Spike	Benjamin	Teacher Training/Enhancement	Eliciting Beliefs of Recitation Instructors Through Video Commentary	Contributed	GA09	Galleria I	7/20/2010	4:20 PM	4:30 PM
Viele	Pat	Teacher Training/Enhancement	Information Fluency: Where to Start?	Contributed	GA10	Galleria I	7/20/2010	4:30 PM	4:40 PM
		Biomedical Labs for Introductory Physics		Inv/Con	GB	Galleria II	7/20/2010	3:00 PM	4:50 PM
McBride	Dyan	Biomedical Labs for Introductory Physics	Ground-Up Development of Biomedical Labs: Wavefront Aberrometry and PET	Invited	GB01	Galleria II	7/20/2010	3:00 PM	3:30 PM
Fuller	Robert	Biomedical Labs for Introductory Physics	Use Biomedical Laboratories in Physics to Develop Student Reasoning	Invited	GB02	Galleria II	7/20/2010	3:30 PM	4:00 PM
Murphy	Sytil	Biomedical Labs for Introductory Physics	Development and Refinement of Biomedical Labs: MRI and CT Scans	Invited	GB03	Galleria II	7/20/2010	4:00 PM	4:30 PM
Adams	Al	Biomedical Labs for Introductory Physics	Doppler Velocimetry in the Introductory Physics Laboratory	Contributed	GB04	Galleria II	7/20/2010	4:30 PM	4:40 PM
Dunlap	Justin	Biomedical Labs for Introductory Physics	Electrocardiogram Physics Lab Exercise	Contributed	GB05	Galleria II	7/20/2010	4:40 PM	4:50 PM
		PER: Problem Solving, Topical Understanding and Attitudes		Contributed	GC	Galleria III	7/20/2010	3:00 PM	4:50 PM
Christensen	Warren	PER: Problem Solving, Topical Understanding and Attitudes	Adapting Effective Small Group Activities	Contributed	GC01	Galleria III	7/20/2010	3:00 PM	3:10 PM
Loverude	Michael	PER: Problem Solving, Topical Understanding and Attitudes	Student Understanding of Micro and Macro in Thermal Physics	Contributed	GC02	Galleria III	7/20/2010	3:10 PM	3:20 PM

Last Name	First Name	Session	Abstract Title	Type	Code	Room	Date	Time	
Meltzer	David	PER: Problem Solving, Topical Understanding and Attitudes	Evolution of Students' Ideas about Entropy	Contributed	GC03	Galleria III	7/20/2010	3:20 PM	3:30 PM
Smith	Trevor	PER: Problem Solving, Topical Understanding and Attitudes	Student Ideas Relating to the Boltzmann Factor and Its Derivation	Contributed	GC04	Galleria III	7/20/2010	3:30 PM	3:40 PM
Dancy	Melissa	PER: Problem Solving, Topical Understanding and Attitudes	Why do Faculty Choose to Use, or Not Use, Research-based Strategies?	Contributed	GC05	Galleria III	7/20/2010	3:40 PM	3:50 PM
Henderson	Charles	PER: Problem Solving, Topical Understanding and Attitudes	The Relationship between Instructor and Situational Characteristics and the Use of Research-Based Instructional Strategies in Introductory Physics	Contributed	GC06	Galleria III	7/20/2010	3:50 PM	4:00 PM
Schell	Julie	PER: Problem Solving, Topical Understanding and Attitudes	Academic Physicists: Introductory Teaching Improvement Efforts at Major Research Universities	Contributed	GC07	Galleria III	7/20/2010	4:00 PM	4:10 PM
Turpen	Chandra	PER: Problem Solving, Topical Understanding and Attitudes	Faculty Interpretations of Instructional Strategies: A National Study	Contributed	GC08	Galleria III	7/20/2010	4:10 PM	4:20 PM
Hsu	Leon	PER: Problem Solving, Topical Understanding and Attitudes	Computer Coaches for General Problem Solving: Research Background	Contributed	GC09	Galleria III	7/20/2010	4:20 PM	4:30 PM
Xu	Qing	PER: Problem Solving, Topical Understanding and Attitudes	Computer Coaches for General Problem Solving: Coaching Implementation	Contributed	GC10	Galleria III	7/20/2010	4:30 PM	4:40 PM
Mason	Andrew	PER: Problem Solving, Topical Understanding and Attitudes	Computer Coaches for General Problem Solving: Assessment Design	Contributed	GC11	Galleria III	7/20/2010	4:40 PM	4:50 PM
		Urban/Rural settings for HS Physics		Inv/Con	GD	Broadway I/II	7/20/2010	3:00 PM	4:40 PM
Jabot	Michael	Urban/Rural settings for HS Physics	Developing a Physics Program by Nurturing the Middle Level	Invited	GD01	Broadway I/II	7/20/2010	3:00 PM	3:30 PM
Amann	George	Urban/Rural settings for HS Physics	Urban vs. Rural: Apples to Apples or Apples to Oranges	Invited	GD02	Broadway I/II	7/20/2010	3:30 PM	4:00 PM
Cannon	Beverly Trina	Urban/Rural settings for HS Physics	Urban & Rural Initiative: Who Was Transformed?	Contributed	GD03	Broadway I/II	7/20/2010	4:00 PM	4:10 PM

Last Name	First Name	Session	Abstract Title	Type	Code	Room	Date	Time	
Henning	Steven	Urban/Rural settings for HS Physics	Rural PTRA Workshops in Central New York	Contributed	GD04	Broadway I/II	7/20/2010	4:10 PM	4:20 PM
Maier	Steven	Urban/Rural settings for HS Physics	HS Physics Teaching in Oklahoma: A Status Report	Contributed	GD05	Broadway I/II	7/20/2010	4:20 PM	4:30 PM
Robinson	Ann	Urban/Rural settings for HS Physics	The University of the South: Rural PTRA Program	Contributed	GD06	Broadway I/II	7/20/2010	4:30 PM	4:40 PM
		Reforming the Introductory Physics Courses for Life Science Majors III		Inv/Posters	GE	Broadway III/IV	7/20/2010	3:00 PM	5:00 PM
Brownlee	Don	Reforming the Introductory Physics Courses for Life Science Majors III	Astrobiology and Planetary Science	Invited	GE01	Broadway III/IV	7/20/2010	3:00 PM	3:30 PM
Ross	Jennifer	Reforming the Introductory Physics Courses for Life Science Majors III	Essential Optics Training for Life Science Students	Invited	GE02	Broadway III/IV	7/20/2010	3:30 PM	4:00 PM
Rodriguez	Juan	Reforming the Introductory Physics Courses for Life Science Majors III	Introducing Quantum Physics to Life Science Students	Invited	GE03	Broadway III/IV	7/20/2010	4:00 PM	4:30 PM
Hobbie	Russell	Reforming the Introductory Physics Courses for Life Science Majors III	Medical Physics in the Introductory Physics Course	Invited	GE04	Broadway III/IV	7/20/2010	4:30 PM	5:00 PM
Fuller	Robert	Reforming the Introductory Physics Courses for Life Science Majors III	The Humanized Physics Project Web Site: A Resource for Instructors of the IPLS Course	Poster	GE05	Broadway III/IV	7/20/2010	3:00 PM	5:00 PM
Lynch	Robert	Reforming the Introductory Physics Courses for Life Science Majors III	The Effects of Multiple Reformed Courses on Freshman Cohorts	Poster	GE06	Broadway III/IV	7/20/2010	3:00 PM	5:00 PM
McBride	Dyan	Reforming the Introductory Physics Courses for Life Science Majors III	Conceptual Physics for Life Science and Sports Medicine Majors	Poster	GE07	Broadway III/IV	7/20/2010	3:00 PM	5:00 PM

Last Name	First Name	Session	Abstract Title	Type	Code	Room	Date	Time	
McCall	Richard	Reforming the Introductory Physics Courses for Life Science Majors III	Physics and Physiology: the Cell Membrane Potential	Poster	GE08	Broadway III/IV	7/20/2010	3:00 PM	5:00 PM
Meredith	Dawn	Reforming the Introductory Physics Courses for Life Science Majors III	Content Rich Problems for an IPLS Course	Poster	GE09	Broadway III/IV	7/20/2010	3:00 PM	5:00 PM
Potter	Wendell	Reforming the Introductory Physics Courses for Life Science Majors III	Authentic Assessment with Explanations and Predictions Using Model-Based Reasoning	Poster	GE10	Broadway III/IV	7/20/2010	3:00 PM	5:00 PM
Potter	Wendell	Reforming the Introductory Physics Courses for Life Science Majors III	Solving Content Problems in IPLS Courses Using a Models Approach	Poster	GE11	Broadway III/IV	7/20/2010	3:00 PM	5:00 PM
Watkins	Jessica	Reforming the Introductory Physics Courses for Life Science Majors III	Understanding How Students Use Physical Ideas in Introductory Biology Courses	Poster	GE12	Broadway III/IV	7/20/2010	3:00 PM	5:00 PM
		Interactive Learning with Electronic Response Systems		Invited	GF	Grand Ballroom II	7/20/2010	3:00 PM	5:20 AM
Beatty	Ian	Interactive Learning with Electronic Response Systems	Key Factors in Teachers' Success or Failure Adopting Clicker Pedagogy	Invited	GF01	Grand Ballroom II	7/20/2010	3:00 PM	3:30 PM
Ding	Lin	Interactive Learning with Electronic Response Systems	Clicker Questions as Conceptual Scaffolding in Solving Synthesis Problems	Invited	GF02	Grand Ballroom II	7/20/2010	3:30 PM	4:00 PM
Thornton	Ronald	Interactive Learning with Electronic Response Systems	Adapting Interactive Lecture Demonstrations for use with Personal Response Systems (clickers)	Invited	GF03	Grand Ballroom II	7/20/2010	4:00 PM	4:30 PM
Carter	Tom	Interactive Learning with Electronic Response Systems	Electronic Response Systems at an Urban University and a Two-year College	Invited	GF04	Grand Ballroom II	7/20/2010	4:30 PM	5:00 PM
		Interactive Methods for Teaching Mechanics: Tutorials, Computation, and Experimentation		Panel	GG	Pavilion East	7/20/2010	3:00 PM	5:00 PM

Last Name	First Name	Session	Abstract Title	Type	Code	Room	Date	Time	
Cox	Anne	Interactive Methods for Teaching Mechanics: Tutorials, Computation, and Experimentation	Computation in Intermediate Mechanics	Panel	GG01	Pavilion East	7/20/2010	3:00 PM	5:00 PM
Ambrose	Bradley	Interactive Methods for Teaching Mechanics: Tutorials, Computation, and Experimentation	A Research-tested Tutorial Approach to Teach Intermediate Mechanics	Panel	GG02	Pavilion East	7/20/2010	3:00 PM	5:00 PM
Kamela	Martin	Interactive Methods for Teaching Mechanics: Tutorials, Computation, and Experimentation	Experiments in Intermediate Mechanics	Panel	GG03	Pavilion East	7/20/2010	3:00 PM	5:00 PM
		The History of Two Year College Physics		Invited	GH	Pavilion West	7/20/2010	3:00 PM	5:00 PM
Desbien	Dwain	The History of Two Year College Physics	How the TYC Community Has Shaped My Career	Invited	GH01	Pavilion West	7/20/2010	3:00 PM	3:30 PM
Nelson	Marvin	The History of Two Year College Physics	Embryonic and First Stages of the TYC Physics Committee	Invited	GH02	Pavilion West	7/20/2010	3:30 PM	4:00 PM
Monroe	Mary Beth	The History of Two Year College Physics	Lessons from the Past	Invited	GH03	Pavilion West	7/20/2010	4:00 PM	4:30 PM
O'Kuma	Thomas	The History of Two Year College Physics	Some Projects and Their Role in Recent Two-Year College Physics History	Invited	GH04	Pavilion West	7/20/2010	4:30 PM	5:00 PM
Heller	Patricia	Millikan Award		Plenary	PL03	Grand Ballroom I	7/20/2010	10:30 AM	12:15 PM
		Lecture/Classroom		Poster	PST2A	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Anderson	Jon		Lessons Learned by a First Time Modeling Teacher	Poster	PST2A01	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Caballero	Marcos		Developing and Deploying Computational Exercises in Introductory Physics	Poster	PST2A02	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM

Last Name	First Name	Session	Abstract Title	Type	Code	Room	Date	Time	
Koenig	Kathleen		Motivating First-Year College Students to Continue as a Science Major	Poster	PST2A03	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Lee	Sunny		The Growing Shadow	Poster	PST2A04	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Brahmia	Suzanne White		Invention of Physical Quantities as an Underpinning for Proportional Reasoning	Poster	PST2A05	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Brahmia	Suzanne White		Physics Study Groups: Using Internal Funding for Effective Undergraduate Support	Poster	PST2A06	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Cecire	Kenneth		Effectiveness of the Masterclass Model for Teaching Physics Concepts and Skills	Poster	PST2A07	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Demaree	Dedra		OSU's Studio Physics Classroom: Building a "SCALE-UP Plus" Room	Poster	PST2A09	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Hood	Tracy		Aligning Student Understanding of Magnetic Domains	Poster	PST2A10	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Rees	Lawrence		Illustrating the Relationship Between Hydrogen Orbital's and Classical Orbits	Poster	PST2A11	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Whitten	Barbara		Physics for Everyone: Designing Inclusive Physics Problems	Poster	PST2A12	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
		Physics Education Research II		Poster	PST2B	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Pearl	Charles	SPS Undergraduate Research and Outreach (Posters)	Direct and Indirect Approaches to Increasing Conceptual Survey Gains	Poster	PST2B01	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Barniol	Pablo		Students' Difficulties in the Concepts of Vector Components and Vector Products	Poster	PST2B02	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Cochran	Geraldine		Utilizing Multiple Studies to Understand Effective Collaboration in the Physics Classroom	Poster	PST2B03	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Ding	Lin		The Role of Conceptual Scaffolding in Students' Solving Synthesis Problems	Poster	PST2B04	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM

Last Name	First Name	Session	Abstract Title	Type	Code	Room	Date	Time	
Docktor	Jennifer		Designing Scoring Rubrics for Problem Solving in Electricity & Magnetism	Poster	PST2B05	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Durden	Jared		Negotiating the Reference Frame Shift: Impact of Appearance on Instruction	Poster	PST2B06	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Han	Jing		Developing Assessment Instruments on Scientific Reasoning	Poster	PST2B07	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Hawkins	Jeffrey		Students' Responses to Different Representations of a Vector Addition Question	Poster	PST2B08	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Henderson	Charles		Improving Technical Education: Opportunities for Physics Educational Researchers	Poster	PST2B09	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Huang	Xiang		Reflective Writing as a Tool for Exploring Physics Courses	Poster	PST2B10	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
K.	Perkins		A CLASS Study of Student Perceptions of Physics in Saudi Arabia and the U.S.	Poster	PST2B11	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Kohl	Patrick		Tracking Gender Gaps Throughout an Undergraduate Physics Degree Program	Poster	PST2B12	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Kustusch	Mary Bridget		Student Difficulties with Right Hand Rules	Poster	PST2B13	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Li	Sissi		Quantitative Study of Student Engagement Comparing Different Lecture Hall Designs	Poster	PST2B14	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Lin	Shih-Yin		Categorization of Quantum Mechanics Problems by Professors and Students	Poster	PST2B15	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Marin-Suarez	Teresita		Assessing the Learning Styles of Engineering Students in Mexico	Poster	PST2B16	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Mason	Andrew		Computer Coaches for General Problem Solving	Poster	PST2B17	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Pawl	Andrew		Toward a Multiple-Choice Inventory to Assess Strategic Knowledge	Poster	PST2B18	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM

Last Name	First Name	Session	Abstract Title	Type	Code	Room	Date	Time	
Perkins	Katherine		New Developments in the PhET Interactive Simulations Project	Poster	PST2B19	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Rayyan	Saif		Modeling Applied to Problem Solving	Poster	PST2B20	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Rosenblatt	Rebecca		Changes in Students: Conceptual Understanding of Force, Velocity, and Acceleration	Poster	PST2B21	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Singh	Chandralekha		Improving Students' Understanding of Gauss's Law of Electricity	Poster	PST2B22	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Smith	Trevor		Addressing Student Difficulties with the Boltzmann Factor: Preliminary Results	Poster	PST2B23	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Mestre	Jose		A Conceptual Analysis Approach to Physics Problem Solving	Poster	PST2B24	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Strand	Natalie		Design and Implementation of a Synthesizing Lecture on Mechanics Concepts	Poster	PST2B25	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Strand	Natalie		Detecting Differences in Changes to Physics Diagrams	Poster	PST2B26	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Teodorescu	Raluca		An Online Mechanics Course Targeting Problem-Solving Expertise	Poster	PST2B27	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Truyol	María Elena		Physics Problem-Solving and Modeling: A Preliminary Study	Poster	PST2B28	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
		Technologies		Poster	PST2C	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Chasteen	Stephanie		An Inside Look: Practical Strategies for Personal Response Systems (Clickers)	Poster	PST2C01	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Nakamura	Christopher		Utility of an Online Synthetic Tutor for Teachers and Students^1	Poster	PST2C02	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Polak	Jeffrey		Designing and Creating VPython Tutorial Videos	Poster	PST2C03	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM

Last Name	First Name	Session	Abstract Title	Type	Code	Room	Date	Time	
Shekoyan	Vazgen		Using Excel Solver as a Facilitating Tool for Physics Problem Solving	Poster	PST2C04	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Corpuz	Edgar	Teaching with Technology	Students' Learning Attitudes and Motivation in an Interactive Teaching Environment	Poster	PST2C05	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Krivosheev	Tatiana		Tee Zero: A Game of Symbolic Manipulation	Poster	PST2C06	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Teese	Robert		LivePhoto, Active Learning with Video Analysis, Workshops and Assessment	Poster	PST2C07	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
		Upper Division and Graduate		Poster	PST2D	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
McKagan	Sarah		Designing Inquiry-Based Modern Physics Laboratories on Nanotechnology and Materials Science	Poster	PST2D01	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Singh	Chandralekha		Surveying Faculty Attitudes and Approaches to Teaching Quantum Mechanics	Poster	PST2D03	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Adams	Betty		Conceptual and Problem Solving Challenges in Geometric and Physical Optics	Poster	PST2D04	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Baily	Charles		The Critical, but Often Overlooked, Teaching of Interpretation in Modern Physics Courses	Poster	PST2D05	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Behringer	Ernest		Mechanical Analogs of Quantum Two-level Systems: A Capstone Project	Poster	PST2D06	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Chasteen	Stephanie		New Ways of Teaching Junior E&M -- Descriptions and Results	Poster	PST2D07	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Juma	Nasser		Capstone Projects for Physics Majors: An Electronics and Instrumentation Course*	Poster	PST2D08	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Liff	Mark		Student Reaction to the Demonstrations of the Gough-Joule effect	Poster	PST2D09	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM

Last Name	First Name	Session	Abstract Title	Type	Code	Room	Date	Time	
Mayer	Shannon		Controlling Light: Investigating Electromagnetically Induced Transparency in the Upper-Division Laboratory	Poster	PST2D10	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Mountcastle	Donald		Curriculum Development Addressing Multiplicity and Probability in Statistical Physics	Poster	PST2D11	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Schell	Julie		Researching Implementation of Instructional Change in the Advanced Physics Laboratory	Poster	PST2D12	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Schkolnikov	Natalia		Student Learning Outcomes and Assessment Methods for Physics Majors	Poster	PST2D13	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Singh	Chandralekha		Peer Instruction for Quantum Mechanics	Poster	PST2D14	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Singh	Chandralekha		Improving Students' Understanding of Addition of Angular Momentum	Poster	PST2D15	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Stone	Antoinette		A Restructured Graduate Classical Mechanics Course at a Large University	Poster	PST2D16	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Zhu	Guangtian		Improving Students' Understanding of Quantum Mechanics	Poster	PST2D17	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
		Physics and Society		Poster	PST2E	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Aubrecht	Gordon		More Letters to the Editor--A Scientist Influencing the Public	Poster	PST2E01	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Kamela	Martin		The Traveling Science Center: Students Learn the Joys of Teaching Abroad	Poster	PST2E02	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Lichtenstein	Maxwell		Informal Science Education Programs that Outlast Seed Funding	Poster	PST2E03	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Rosengrant	David		Teaching Physics with Sustainable Energies via Digital Technologies	Poster	PST2E04	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM

Last Name	First Name	Session	Abstract Title	Type	Code	Room	Date	Time	
Whitten	Barbara		Alternative Energy Projects for Service Learning in Science	Poster	PST2E05	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Wulf	Rosemary		Impact of Informal Science Education on Children's Attitudes about Science	Poster	PST2E06	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
		Undergraduate Posters from China		Poster	PST2F	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Shao	Tong	Undergraduate Posters from China	The Applications of Semiconductor Nanowires: Nanogenerator	Poster	PST2F01	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Han	Xuejiao	Undergraduate Posters from China	Magnetic Monopole	Poster	PST2F02	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Yang	Yunjie	Undergraduate Posters from China	The Optics and Painting	Poster	PST2F03	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Ye	Fangwei	Undergraduate Posters from China	Parallel Universes	Poster	PST2F04	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Ling	Xintong	Undergraduate Posters from China	Electromagnetic Black Hole	Poster	PST2F05	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Qian	Wei	Undergraduate Posters from China	Timekeeping Techniques	Poster	PST2F06	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Zhu	Zece	Undergraduate Posters from China	Problem-based Learning	Poster	PST2F07	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
				Poster	PST2G	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Chandler	David	Video Analysis	Video Analysis of the Collapse of the World Trade Center	Poster	PST2G01	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Close	Robert	Big Questions in Physics	Mechanical Modeling of Relativistic Quantum Mechanics	Poster	PST2G02	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Ferris	Pamella		The Electromagnetic Spectrum: ROY G BIV and Beyond	Poster	PST2G03	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM

Last Name	First Name	Session	Abstract Title	Type	Code	Room	Date	Time	
Foong	See Kit		On the Phase Difference of Voltage and Current in an RC Circuit	Poster	PST2G04	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Foong	See Kit		Who Does More Work? On Work Done by Gaussian Impulse	Poster	PST2G05	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Hobson	Art		Teaching the Scientific Process in Introductory Physics	Poster	PST2G06	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Meyers	Karie		Finding the Moment of Inertia in Lab	Poster	PST2G07	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Mitchell	Robert		Construction and Operation of Simple Sundial-Calendar-Clock	Poster	PST2G08	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Noble	Aaron	Dealing with Mathematical Difficulties in Lower and Upper Division Physics Courses	Projectile Motion Calculation Concept Map	Poster	PST2G09	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Partensky	Michael	Dealing with Mathematical Difficulties in Lower and Upper Division Physics Courses	Teaching Catastrophic Behaviors in Introductory Physics	Poster	PST2G10	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Raymond	Nick		Design and Characterization of a Prototype Linear Generator as a Wave Energy Converter, WEC.	Poster	PST2G11	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Serna	Juan		Studying Springs in Series Using a Single Spring	Poster	PST2G12	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
Vineyard	Michael	Upper Division Laboratories: Ideas, Equipment, and Techniques	The Upper-Level Laboratory at Union College	Poster	PST2G13	Exhibit Hall	7/20/2010	9:20 PM	10:50 PM
		Crackerbarrel: Using History to Teach Physics		Ckrbrl	CKB06	Galleria I	7/21/2010	12:30 PM	1:40 PM
		Web Resources for Teaching Astronomy		Ckrbrl	CKB07	Galleria II	7/21/2010	12:30 PM	1:40 PM

Last Name	First Name	Session	Abstract Title	Type	Code	Room	Date	Time	
		Online Workshops and Labs for HS Physics Programs		Inv/Con	HA	Galleria III	7/21/2010	9:40 AM	10:50 AM
Hynes	Shelly	Online Workshops and Labs for HS Physics Programs	The Louisiana Virtual School: Teaching Inquiry to Online Students Using Virtual Labs, Portable Interfaces, and Online Assessments	Invited	HA01	Galleria III	7/21/2010	9:40 AM	10:10 AM
Gwartney	Stacy	Online Workshops and Labs for HS Physics Programs	Online Courses Don't Have to Hang You Out to Dry	Invited	HA02	Galleria III	7/21/2010	10:10 AM	10:40 AM
Lietz	Martha	Online Workshops and Labs for HS Physics Programs	On-Line Satellite Motion Lab Using PhET	Contributed	HA03	Galleria III	7/21/2010	10:40 AM	10:50 AM
		Physics Education Research Around the World II		Contributed	HB	Broadway I/II	7/21/2010	9:40 AM	11:00 AM
Aubrecht	Gordon	Physics Education Research Around the World II	Remembering Len Jossem, International Ambassador of Physics Education	Contributed	HB01	Broadway I/II	7/21/2010	9:40 AM	9:50 AM
Bao	Lei	Physics Education Research Around the World II	Large Scale Assessment of Scientific Reasoning	Contributed	HB02	Broadway I/II	7/21/2010	9:50 AM	10:00 AM
Bates	Simon	Physics Education Research Around the World II	Attitudes and Beliefs in Physics: From High School to Faculty	Contributed	HB03	Broadway I/II	7/21/2010	10:00 AM	10:10 AM
Galloway	Ross	Physics Education Research Around the World II	A Data Handling Diagnostic: Design, Pilot Testing and Evaluation	Contributed	HB04	Broadway I/II	7/21/2010	10:10 AM	10:20 AM
HU	Haiyun	Physics Education Research Around the World II	Quantitative Analysis of the Role of WLS in Physics Education	Contributed	HB05	Broadway I/II	7/21/2010	10:20 AM	10:30 AM
		Innovative Microcomputer Based Laboratory Activities Utilizing Recently Developed Sensors or Hardware		Inv/Con	HC	Broadway III/IV	7/21/2010	9:40 AM	11:10 AM
Rasnow	Brian	Innovative Microcomputer Based Laboratory Activities Utilizing Recently Developed Sensors or Hardware	LumaScope, an Inexpensive CMOS- and USB-Based Inverted Fluorescence Microscope	Invited	HC01	Broadway III/IV	7/21/2010	9:40 AM	10:10 AM

Last Name	First Name	Session	Abstract Title	Type	Code	Room	Date	Time	
Pellett	David	Innovative Microcomputer Based Laboratory Activities Utilizing Recently Developed Sensors or Hardware	Use of Arduino Microcontroller in a Physics Digital Electronics Course	Invited	HC02	Broadway III/IV	7/21/2010	10:10 AM	10:40 AM
Ayars	Eric	Innovative Microcomputer Based Laboratory Activities Utilizing Recently Developed Sensors or Hardware	Applications of Arduino Microcontrollers in Undergraduate Laboratories	Invited	HC03	Broadway III/IV	7/21/2010	10:40 AM	11:10 AM
		National Task Force on Teacher Education in Physics: Case Studies		Inv/Con	HD	Grand Ballroom I	7/21/2010	1:45 PM	3:25 PM
Vokos	Stamatis	National Task Force on Teacher Education in Physics: Case Studies	T-TEP Report: Findings and Recommendations	Invited	HD01	Grand Ballroom I	7/21/2010	1:45 PM	2:15 PM
Bonham	Scott	National Task Force on Teacher Education in Physics: Case Studies	SKyTeach Physics: The Case of Physics Teacher Preparation at WKU	Contributed	HD02	Grand Ballroom I	7/21/2010	2:15 PM	2:25 PM
Heron	Paula	National Task Force on Teacher Education in Physics: Case Studies	Physics by Inquiry: A Research-based Approach to Teacher Preparation	Contributed	HD03	Grand Ballroom I	7/21/2010	2:25 PM	2:35 PM
Jackson	Jane	National Task Force on Teacher Education in Physics: Case Studies	Preparation of Out-of-Field Physics Teachers at Arizona State University	Contributed	HD04	Grand Ballroom I	7/21/2010	2:35 PM	2:45 PM
Hestenes	David	National Task Force on Teacher Education in Physics: Case Studies	What Physics Departments Can Do for K-12 Science Education Reform	Contributed	HD05	Grand Ballroom I	7/21/2010	2:45 PM	2:55 PM
Mayhew	Laurel	National Task Force on Teacher Education in Physics: Case Studies	Impacts of Informal Science Education University: Community Partnerships	Contributed	HD06	Grand Ballroom I	7/21/2010	2:55 PM	3:05 PM
Merrell	Duane	National Task Force on Teacher Education in Physics: Case Studies	Brigham Young Universities Efforts to Prepare Physics Teachers	Contributed	HD07	Grand Ballroom I	7/21/2010	3:05 PM	3:15 PM

Last Name	First Name	Session	Abstract Title	Type	Code	Room	Date	Time	
Escalada	Lawrence		UNI Physics Teacher Preparation Programs for Undergraduates and Existing Teachers	Contributed	HD08	Grand Ballroom I	7/21/2010	3:15 PM	3:25 PM
		Upper-Level Undergraduate Physics		Contributed	HE	Pavilion East	7/21/2010	9:40 AM	11:10 AM
Di Bartolo	John	Upper-Level Undergraduate Physics	Orientation Change for Two-Dimensional Articulated Figures of Zero Angular Momentum	Contributed	HE01	Pavilion East	7/21/2010	9:40 AM	9:50 AM
Johnson	Scott	Upper-Level Undergraduate Physics	Decoherence Demonstration	Contributed	HE02	Pavilion East	7/21/2010	9:50 AM	10:00 AM
Kohnle	Antje	Upper-Level Undergraduate Physics	Developing and Evaluating Animated Visualizations for Teaching Quantum Mechanics Concepts	Contributed	HE03	Pavilion East	7/21/2010	10:00 AM	10:10 AM
Loats	Jeff	Upper-Level Undergraduate Physics	Just in Time Teaching in an Upper-Division Elective	Contributed	HE04	Pavilion East	7/21/2010	10:10 AM	10:20 AM
More	Tamar	Upper-Level Undergraduate Physics	Using Mathematica to Understand the Zeeman Effect and Perturbation Theory	Contributed	HE05	Pavilion East	7/21/2010	10:20 AM	10:30 AM
Perkins	Katherine	Upper-Level Undergraduate Physics	Colorado's Transformed Upper-division E&M and QM courses: Description and Results	Contributed	HE06	Pavilion East	7/21/2010	10:30 AM	10:40 AM
Singh	Chandralekha	Upper-Level Undergraduate Physics	Improving Students' Understanding of Addition of Angular Momentum	Contributed	HE07	Pavilion East	7/21/2010	10:40 AM	10:50 AM
van Kampen	Paul	Upper-Level Undergraduate Physics	Tutorials in Upper Level Electromagnetism	Contributed	HE08	Pavilion East	7/21/2010	10:50 AM	11:00 AM
Zhu	Guangtian	Upper-Level Undergraduate Physics	Improving Students' Understanding of Quantum Measurement	Contributed	HE09	Pavilion East	7/21/2010	11:00 AM	11:10 AM
		Student Understanding of Enerrgy		Contributed	HF	Pavilion West	7/21/2010	9:40 AM	11:00 AM
Seeley	Lane	Student Understanding of Enerrgy	Going Rogue: In Search of Passionate and Unencumbered Talk about Energy in the Blogosphere.	Contributed	HF01	Pavilion West	7/21/2010	9:40 PM	9:50 AM

Last Name	First Name	Session	Abstract Title	Type	Code	Room	Date	Time	
McKagan	Sarah	Student Understanding of Enerrgy	Ontology in the Flesh: Embodied Learning Activities for Conceptual Understanding of Energy	Contributed	HF02	Pavilion West	7/21/2010	9:50 AM	10:00 AM
Close	Eleanor	Student Understanding of Enerrgy	Energy in Action: The Construction of Physics Ideas in Multiple Modes	Contributed	HF03	Pavilion West	7/21/2010	10:00 AM	10:10 AM
Close	Hunter	Student Understanding of Enerrgy	Empathizing With Energy: Understanding Physics By Identifying With Hypothetical Entities	Contributed	HF04	Pavilion West	7/21/2010	10:10 AM	10:20 AM
Scherr	Rachel	Student Understanding of Enerrgy	Individual and Group Understanding of Energy in an Embodied Learning Activity	Contributed	HF05	Pavilion West	7/21/2010	10:20 AM	10:30 AM
DeWater	Lezlie	Student Understanding of Enerrgy	Depicting Energy: A Collaboration between Physics and Art	Contributed	HF06	Pavilion West	7/21/2010	10:30 AM	10:40 AM
Lee	Sunny	Student Understanding of Enerrgy	The Comprehensive Approach of Energy Concept and Promotion of Scientific Literacy	Contributed	HF07	Pavilion West	7/21/2010	10:40 AM	10:50 AM
Potter	Wendell	Student Understanding of Enerrgy	Successfully Doing Energy First: Using a Models Approach	Contributed	HF08	Pavilion West	7/21/2010	10:50 AM	11:00 AM
		Teacher Preparation Around the World		Inv/Con	IA	Galleria II	7/21/2010	1:45 PM	3:15 PM
Benegas	Julio	Teacher Preparation Around the World	Physics Teacher Preparation in Argentina: Present and Future	Invited	IA01	Galleria II	7/21/2010	1:45 PM	2:15 PM
Didis	Gozde	Teacher Preparation Around the World	Pre-service Teacher Training: Reasons Behind the Problems in Practicum	Contributed	IA02	Galleria II	7/21/2010	2:15 PM	2:25 PM
Kaltakci	Derya	Teacher Preparation Around the World	Integrating Teaching and Learning in Pre-Service Teacher Education	Contributed	IA03	Galleria II	7/21/2010	2:25 PM	2:35 PM
		Astronomy Teaching Innovations and Student Projects		Inv/Con	IB	Galleria III	7/21/2010	1:45 PM	3:35 PM
Lawler	M. Jeannette	Astronomy Teaching Innovations and Student Projects	Non-Verbal Instruction in Planetariums with Full-Dome Graphics Capability	Invited	IB01	Galleria III	7/21/2010	1:45 PM	2:15 PM
Krok	Michelle	Astronomy Teaching Innovations and Student Projects	Promoting and Gauging Conceptual Change in Planetarium Audiences at Formal and Informal Institutions	Invited	IB02	Galleria III	7/21/2010	2:15 PM	2:45 PM

Last Name	First Name	Session	Abstract Title	Type	Code	Room	Date	Time	
Heafner	Joe	Astronomy Teaching Innovations and Student Projects	Homework Questions that Promote Critical Thinking	Contributed	IB03	Galleria III	7/21/2010	2:45 PM	2:55 PM
Pendrill	Ann-Marie	Astronomy Teaching Innovations and Student Projects	Earth Rotating Around Its Axis - How Do We Know?	Contributed	IB04	Galleria III	7/21/2010	2:55 AM	3:05 PM
Kelly	Susan	Astronomy Teaching Innovations and Student Projects	WISE/Spitzer Space Telescope Research Program for Teachers and Students	Contributed	IB05	Galleria III	7/21/2010	3:05 PM	3:15 PM
Kernohan	James	Astronomy Teaching Innovations and Student Projects	Transit Observations of HAT-P-10	Contributed	IB06	Galleria III	7/21/2010	3:15 PM	3:25 PM
Mallmann	A James	Astronomy Teaching Innovations and Student Projects	Tree Leaf Shadows to the Sun's Density: A Surprising Route	Contributed	IB07	Galleria III	7/21/2010	3:25 PM	3:35 PM
		Dealing with Mathematical Difficulties in Lower and Upper Division Physics Courses		Inv/Con	IC	Broadway I/II	7/21/2010	1:45 PM	3:45 PM
Redish	Edward	Dealing with Mathematical Difficulties in Lower and Upper Division Physics Courses	Characterizing Expertise in Physics Problem Solving	Invited	IC01	Broadway I/II	7/21/2010	1:45 PM	2:15 PM
Thompson	John	Dealing with Mathematical Difficulties in Lower and Upper Division Physics Courses	Investigating Student Understanding of Integrals in Upper-Division Thermodynamics	Invited	IC02	Broadway I/II	7/21/2010	2:15 PM	2:45 PM
Pepper	Rachel	Dealing with Mathematical Difficulties in Lower and Upper Division Physics Courses	Upper-Division Electricity and Magnetism: Students' Ideas and Difficulties	Invited	IC03	Broadway I/II	7/21/2010	2:45 AM	3:15 PM
Babiuc-Hamilton	Maria	Dealing with Mathematical Difficulties in Lower and Upper Division Physics Courses	Developing Scientific Thinking in the Physics Labs	Contributed	IC04	Broadway I/II	7/21/2010	3:15 PM	3:25 PM
Hinrichs	Brant	Dealing with Mathematical Difficulties in Lower and Upper Division Physics Courses	Student Difficulties with non-Cartesian Unit Vectors in Upper-Level E&M	Contributed	IC05	Broadway I/II	7/21/2010	3:25 PM	3:35 PM

Last Name	First Name	Session	Abstract Title	Type	Code	Room	Date	Time	
Wiegert	Craig	Dealing with Mathematical Difficulties in Lower and Upper Division Physics Courses	Addressing Students: Math Deficiencies in Introductory Physics with Online Tutorials	Contributed	IC06	Broadway I/II	7/21/2010	3:35 PM	3:45 PM
		PER: Problem Solving		Contributed	ID	Broadway III/IV	7/21/2010	1:45 PM	3:45 PM
Carmichael	Adrian	PER: Problem Solving	Comparing Expert and Novice Eye Movements While Solving Physics Problems	Contributed	ID01	Broadway III/IV	7/21/2010	1:45 PM	1:55 PM
Marx	Jeffrey	PER: Problem Solving	Assessing Student's Ability to Solve Textbook-Style Problems: Update, Part I	Contributed	ID02	Broadway III/IV	7/21/2010	1:55 PM	2:05 PM
Cummings	Karen	PER: Problem Solving	Assessing Student's Ability to Solve Textbook-Style Problems: Update, Part II	Contributed	ID03	Broadway III/IV	7/21/2010	2:05 PM	2:15 PM
Docktor	Jennifer	PER: Problem Solving	Design and Implementation of a Synthesizing Lecture on Mechanics Concepts	Contributed	ID04	Broadway III/IV	7/21/2010	2:15 PM	2:25 PM
Lin	Shih-Yin	PER: Problem Solving	Using Analogy for Learning Introductory Physics	Contributed	ID05	Broadway III/IV	7/21/2010	2:25 PM	2:35 PM
Mestre	Jose	PER: Problem Solving	A Conceptual Analysis Approach to Physics Problem Solving	Contributed	ID06	Broadway III/IV	7/21/2010	2:35 PM	2:45 PM
Nguyen	Dong-Hai	PER: Problem Solving	Facilitating Problem Solving Across Representations in Introductory Electricity and Magnetism	Contributed	ID07	Broadway III/IV	7/21/2010	2:45 PM	2:55 PM
Pawl	Andrew	PER: Problem Solving	Toward a Multiple-Choice Inventory Assessing Strategic Knowledge	Contributed	ID08	Broadway III/IV	7/21/2010	2:55 PM	3:05 PM
Rayyan	Saif	PER: Problem Solving	Modeling Applied to Problem Solving	Contributed	ID09	Broadway III/IV	7/21/2010	3:05 PM	3:15 PM
Strand	Natalie	PER: Problem Solving	Detecting Differences in Changes to Physics Diagrams	Contributed	ID10	Broadway III/IV	7/21/2010	3:15 PM	3:25 PM
Teodorescu	Raluca	PER: Problem Solving	An Online Mechanics Course Targeting Problem-Solving Expertise	Contributed	ID11	Broadway III/IV	7/21/2010	3:25 PM	3:35 PM

Last Name	First Name	Session	Abstract Title	Type	Code	Room	Date	Time	
Zavala	Genaro	PER: Problem Solving	Vector addition: Effect of the Context and Position of the Vectors	Contributed	ID12	Broadway III/IV	7/21/2010	3:35 PM	3:45 PM
		High Performance Computing		Invited	IE	Ballroom II	7/21/2010	1:45 PM	3:45 PM
Breen	Barbara	High Performance Computing	Invitation to Embarrassingly Parallel Computing	Invited	IE01	Ballroom II	7/21/2010	1:45 PM	2:15 PM
Gass	Richard	High Performance Computing	Computational Quantum Mechanics in the Undergraduate Curriculum	Invited	IE02	Ballroom II	7/21/2010	2:15 PM	2:45 PM
Panoff	Robert	High Performance Computing	Algorithmic Agility and High Performance Computing: Lessons from Pair Potentials	Invited	IE03	Ballroom II	7/21/2010	2:45 PM	3:15 PM
Landau	Rubin	High Performance Computing	High Performance and Parallel Computing for Beginners and Dummies	Invited	IE04	Ballroom II	7/21/2010	3:15 PM	3:45 PM
		Out of One, Many: Researchers from Five Different Perspectives Analyze the Same Student Video		Panel	IF	Pavilion East	7/21/2010	1:45 PM	3:45 PM
Boudreaux	Andrew	Out of One, Many: Researchers from Five Different Perspectives Analyze the Same Student Video	Cultivating Multiple Sensitivities to Student Thinking	Panel	IF01	Pavilion East	7/21/2010	1:45 PM	3:45 PM
Dykstra	Dewey	Out of One, Many: Researchers from Five Different Perspectives Analyze the Same Student Video	"Seeing" the Development of Physical Theory in Students' Minds	Panel	IF02	Pavilion East	7/21/2010	1:45 PM	3:45 PM
Scherr	Rachel	Out of One, Many: Researchers from Five Different Perspectives Analyze the Same Student Video	Thinking About Energy with Bodies and Objects: Cognition as a Sensorimotor and Material Activity	Panel	IF03	Pavilion East	7/21/2010	1:45 PM	3:45 PM
Russ	Rosemary	Out of One, Many: Researchers from Five Different Perspectives Analyze the Same Student Video	The Rules of Discourse In Learning Interactions	Panel	IF04	Pavilion East	7/21/2010	1:45 PM	3:45 PM

Last Name	First Name	Session	Abstract Title	Type	Code	Room	Date	Time	
Otero	Valerie	Out of One, Many: Researchers from Five Different Perspectives Analyze the Same Student Video	Physics Learning as the Objectification of Discourse	Panel	IF05	Pavilion East	7/21/2010	1:45 PM	3:45 PM
		Science and Religion		Invited	IG	Pavilion West	7/21/2010	1:45 PM	3:45 PM
Levine	Herbert	Science and Religion	Science and Observance: Must Traditional Judaism be Fundamentalist?	Invited	IG01	Pavilion West	7/21/2010	1:45 PM	2:15 PM
Koss	Matthew	Science and Religion	An Atheist Physicist's Perspective on the Science-Religion Landscape	Invited	IG02	Pavilion West	7/21/2010	2:15 PM	2:45 PM
Nienaber	Paul	Science and Religion	A Religious Physicist Looks at the Science/Religion Landscape	Invited	IG03	Pavilion West	7/21/2010	2:45 PM	3:15 PM
Vokos	Stamatis	Science and Religion	Using Students' Metaphysical Beliefs as Resources in the Physics Classroom	Invited	IG04	Pavilion West	7/21/2010	3:15 PM	3:45 PM
		Post Deadline		Contributed	IH	Galleria I	7/21/2010	1:45 PM	3:45 PM
Chandler	David	Video Analysis	Video Analysis Places Constraints on WTC Collapse Mechanism	Contributed	IH01	Galleria I	7/21/2010	1:45 PM	1:55 PM
Finley	James		Matching How We Teach to How We Assess the Power of Context	Contributed	IH02	Galleria I	7/21/2010	1:55 PM	2:05 PM
Flores	Sergio	Teaching with Technology	Physics Concepts Instructional Approach Based on in-lab Videos	Contributed	IH03	Galleria I	7/21/2010	2:05 PM	2:10 PM
Foong	See Kit		Estimating the Density of a Floating Watermelon Based on Photograph	Contributed	IH04	Galleria I	7/21/2010	2:10 PM	2:20 PM
Hieggelke	Curtis		nTIPERs Part II	Contributed	IH05	Galleria I	7/21/2010	2:15 PM	2:25 PM
Kagan	Mikhail		Fysics is Phun	Contributed	IH06	Galleria I	7/21/2010	2:25 PM	2:35 PM

Last Name	First Name	Session	Abstract Title	Type	Code	Room	Date	Time	
Kim	Jung Bog		Shadow or Image?	Contributed	IH07	Galleria I	7/21/2010	2:35 PM	2:45 PM
Kontokostas	George	Teaching with Technology	Feynman Diagrams	Contributed	IH08	Galleria I	7/21/2010	2:45 PM	2:55 PM
Lincoln	James		The Etymology of Physics - Why does this symbol stand for that?	Contributed	IH09	Galleria I	7/21/2010	2:55 PM	3:05 PM
Maloney	David		nTIPERs Part 1	Contributed	IH10	Galleria I	7/21/2010	3:05 PM	3:15 PM
Partensky	Michael	Simulated Learning? Using Simulations to Teach Physics	Problems Without Borders	Contributed	IH11	Galleria I	7/21/2010	3:15 PM	3:25 PM
Ponnambalam	Michael		Computer Simulations in Promoting Physics in Jamaica	Contributed	IH12	Galleria I	7/21/2010	3:25 PM	3:35 PM
Rosenfield	Philip	Innovations in Teaching Astronomy	Pre-MAP: Increasing Undergraduate Diversity Through Research	Contributed	IH13	Galleria I	7/21/2010	3:35 PM	3:45 PM
		Post Deadline II		Contributed	II	TBA	7/21/2010	1:45 PM	2:25 PM
Tansil	John	Reforming the Introductory Physics Courses for Life Science Majors III	Average Annual Ionizing Radiation Received by a U.S. Resident	Contributed	II01	TBA	7/21/2010	1:45 PM	1:55 PM
Uran	Serif		Interactive Introductory College Physics Education with Clickers	Contributed	II02	TBA	7/21/2010	1:55 PM	2:05 PM
VanEngen Spive	Amelia	Upper-Level Undergraduate Physics	Connecting Everyday Life to Theory in Upper-Level Electricity and Magnetism	Contributed	II03	TBA	7/21/2010	2:05 PM	2:15 PM
Wong	Darren	Teaching with Technology	Electromagnetic Induction Lab with a Falling, Oscillating and Swinging Magnet	Contributed	II04	TBA	7/21/2010	2:15 PM	2:25 PM
		PERC Bridging Session		Invited	JA	Grand Ballroom II	7/21/2010	4:00 PM	5:30 PM

Last Name	First Name	Session	Abstract Title	Type	Code	Room	Date	Time	
Hammer	David	PERC Bridging Session	Why Science as Pursuit Should Have Priority in Elementary School	Invited	JA01	Grand Ballroom II	7/21/2010	4:00 PM	4:30 PM
Etkina	Eugenia	PERC Bridging Session	Rethinking Our Goals: What Will Our Students Remember When They Forget Everything?	Invited	JA02	Grand Ballroom II	7/21/2010	4:30 PM	5:00 PM
McDermott	Lillian	PERC Bridging Session	Development of Functional Understanding in Physics: Promoting Ability to Reason	Invited	JA03	Grand Ballroom II	7/21/2010	5:00 PM	5:30 PM
Scherrer	Robert	Klopsteg Award	Science and Science Fiction	Plenary	PL04	Grand Ballroom I	7/21/2010	8:30 AM	9:35 AM
		PTRA at its 25th Anniversary		Panel	PL05	Grand Ballroom I	7/21/2010	11:15 AM	12:30 PM