## Meeting-at-a-Glance

Meeting-at-a-Glance includes sessions, workshops, committee meetings and other events, including luncheons, Exhibit Hall hours and snacks, plenary sessions, and receptions. All rooms will be in buildings on the University of Pennsylvania Campus. Workshops on Saturday and Sunday will be in the **Physics Department in David Rittenhouse Labs Building (DRL).** 

KEY: HH = Houston Hall IA = Irvine Auditorium CCH = Claudia Cohen Hall DRL = David Rittenhouse Labs

## FRIDAY, July 27

4–7 p.m.		REGISTRATION	HH- Reading Room
SATURDAY, July 28			
7 a.m4 p.m. 8 a.m12 p.m. 8 a.m12 p.m. 8 a.m12 p.m. 8 a.m12 p.m. 8 a.m12 p.m. 8 a.m5 p.m. 8 a.m5 p.m. 8 a.m5 p.m. 8 a.m5 p.m. 8 a.m5 p.m. 8 a.m5 p.m.	W08 W09 W11 W12 W13 W01 W02 W03 W04 W05 W06	REGISTRATION LivePhoto Physics: Advanced Projects with Video Analysis CASTLE Workshop - Model Building Investigations of Electromagnetic Field Production New RealTime Physics and Interactive Lecture Demonstration Tools and Curricula Teaching Physics in Urban Schools Using FPGAs in the Digital Lab Building Scientific Apparatus and Invention Prototypes Grant Writing Learning Physics While Practicing Science Make, Take, and Do: Homemade Physics Equipment Physics By Design PIRA Lecture Demonstration I	HH - Reading Room DRL - 3W2 DRL - 3C8 DRL - 3N20 DRL - 3N12 DRL - 3N16 DRL - 3N9 DRL - Computer Lab DRL - 3W5 DRL - 3N17 DRL - 3N15 DRL - A1
1–5 p.m. 1–5 p.m. 1–5 p.m. 1–5 p.m. 1–5 p.m. 1–5 p.m. 4–5:15 p.m. 5:15–7:15 p.m. 6:30–10 p.m.	W14 W15 W16 W17 W18 W19	Ben Franklin is My Lab Partner Introductory Laboratories Lab Experiments that (can) Re-appear Across the Curriculum Modeling Physics for University Physics Science and Religion: Teaching Critical Thinking Skepticism in the Classroom Awards Committee Meetings Committee AAPT Executive Board I	DRL - 3N12 DRL - 3W7 and 11 DRL - 3N16 DRL - 3C6 DRL - 3W2 DRL - 3C2 HH - Griski Sheraton - Chestnut Sheraton - William Penn
SUNDAY, July 29			
7 a.m4 p.m. 8-10 a.m. 8 a.m12 p.m.	W25 W26 W27 W28 W29 W30 W31 W32 W33	REGISTRATION Publications Committee Real-time Assessments of Student Understanding PRISMS — A High School Physics Curriculum Activities for Teaching About Weather and Climate Can You Teach Radioactivity Using Inquiry? Yes! ClassAction: Interactive Classroom Materials for Introductory Astronomy How to Make Significant, Lasting Changes in Intro. Physics for Life Science Course From Ptolemy to Einstein: Using Computer Simulations in Astronomy Sound & Music, Ways to Teach It (Free Kit!) PTRA Workshop: Using Children's Literature to Teach Science PIRA Lecture Demonstration II	HH - Reading Room Sheraton - William Penn DRL - 3C2 DRL - 3W2 DRL - 3N15 DRL - 3N12 DRL - 3C6 DRL - 3N14 DRL - PC Lab 1 DRL - 3W5 DRL - 3N22 DRL - A1
8 a.m5 p.m. 8 a.m5 p.m. 8 a.m5 p.m. 8 a.m5 p.m. 8 a.m5 p.m. 9 a.m12 p.m. 10 a.m5:10 p.m. 10:30 a.m12 p.m. 11:30 a.m2 p.m. 1-5 p.m. 1-5 p.m. 1-5 p.m. 1-5 p.m. 1-5 p.m. 1-5 p.m. 1-5 p.m.	W21 W22 W23 T01 W10 W35 W36 W37 W38 W39 W40	The Physics of Energy UTeach Observation Protocol (UTOP) Computation and the Modeling Curriculum PIRA Resource Room/Apparatus Competition Set-up High School Physics Photo Contest Viewing & Voting Research-based Teaching Strategies to Close the Gap Executive Board II Nominating Committee Resource Letters Committee "Hands-on" on the Road Simple Experiments for Learning the Strategies that Mirror Scientific Practice Advanced & Intermediate Laboratories Biology-Inspired Labs for Introductory Physics Cosmology in the Classroom Free Online Integrated Learning Environment for Mechanics Heliophysics Applications for Physics Teaching	DRL - 3N17 DRL - 3C8 DRL - 3N16 HH - Platt Rehearsal HH - Hall of Flags Balcony DRL- 3C4 Sheraton - William Penn IA - G01 Green IA - G7 DRL - 3N15 DRL - 3N9 DRL - 3W7 and 11 DRL - 3N12 DRL - 3W10 DRL - 3N14 DRL - 3N22

1–5 p.m. 1–5 p.m. 1–5 p.m. 1–5 p.m.	W42 W43 W45 PTRA-4	LEAP: Learner-Centered Environment for Algebra-based Physics Physics and Toys II: Energy, Momentum, Electricity, and Magnetism Video Resource for Learning Assistant Development Sound and Music: H.S. Materials Plus Updates for Grades	DRL - 3W5 DRL - 3W2 DRL - 3C4 RNL - 3N6
5:15–6:30 p.m. 5:30–6:30 p.m. 6–8 p.m. 6:30–8 p.m. 6:30–8 p.m. 6:30–8 p.m. 6:30–8 p.m. 6:30–8 p.m. 7:30–9 p.m. 8–10 p.m.		Programs Committee I Section Officers Exchange High School Share-a-Thon Section Representatives Research in Physics Education Committee (RiPE) Committee on Laboratories Committee on Graduate Education in Physics Committee on SI Units and Metric Education REGISTRATION Exhibit Hall Opening / Welcome Reception SPS Undergraduate and Graduate Research Poster Session / Reception	HH - Golkin CCH - Terrace IA - Amado Recital Hall CCH - Terrace HH - Class of 47 IA - G16 HH - Griski IA - G7 HH - Reading Room HH - Bodek/Hall of Flags HH - Bistro
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MONDAY, July 30 7 a.m5 p.m. 7-8:30 a.m. 7-8:30 a.m. 7:15-8:20 a.m. 7:15-8:15 a.m. 8-10 a.m. 8 a.m5 p.m. 8 a.m-5 p.m. 8 a.m-5 p.m.		REGISTRATION Committee on Teacher Preparation Committee on Women in Physics Committee on Educational Technologies First Timers' Gathering Two-Year College Breakfast (ticket required) Poster Session I Set-up High School Physics Photo Contest Viewing & Voting TYC Resource Room PIRA Resource Room	HH - Reading Room IA - G7 IA - G16 IA - G01 Green IA - Cafe 58 HH - Ben Franklin HH - Bistro HH - Hall of Flags Balcony HH - Reading Room Alcove HH - Platt Rehearsal
8:30–10:30 a.m. 8:30–10:30 a.m. 8:30–10:30 a.m. 8:30–10:30 a.m. 8:30–10:30 a.m. 8:30–10:30 a.m. 8:30–10:30 a.m. 8:30–10:30 a.m. 8:30–10:30 a.m.	AA AB AC AD AE AF AG AH AI PTRA-1	Assessing Student Learning in Upper-Division Labs Panel: The Good and the Bad of Video Lectures Frontiers in Astronomy and Space Science Textbooks and Labs Suitable for Ninth Grade Physics PER: Topical Understanding - Introductory Level Teacher Preparation Around the World Two-Year College New Faculty Experience PER in the High School Teaching Physics to the Liberal Arts Major Explorations and Practicums, co-presented by George Amann and Pat Callahan	Sheraton - Ben Franklin I Sheraton - Ben Franklin II Sheraton - Ben Franklin IV HH - Class of 49 Sheraton - Ben Franklin V IA - Amado Recital Hall CCH - Claudia Cohen Terrace HH - Golkin DRL - 3N6
10 a.m6 p.m. 10:30-11:30 a.m. 10:45 a.m. 11 a.m12:10 p.m. 12:15-1:15 p.m.	Awards CW04 CW05 CW06 Crkbrl-01 Crkbrl-02	Exhibit Hall Open (coffee break, 10:30 a.m.)  Spouses/Guest Gathering Monday Amazon Kindle Drawing  AAPT Excellence in Teaching Awards Pearson Commercial Workshop Klinger Educational Products Corp. Commercial Workshop Physics2000.com Workshop in Introductory Physics Vidshare: Motivating and Elucidating Short Videos You Can Use! Crackerbarrel: Physics and Society Early Career Professionals Speed Networking Event Retired Physicists' Luncheon (ticket required) H.S. Teachers' First Timers Luncheon/ AAPT: What's in it for H.S. Teachers? Membership and Benefits Committee PERG Town Hall Meeting AAPT Board /APS FEd Members Luncheon APS Division of Biophysics: Birds, Brains, and Physics	HH - Bodek and Hall of Flags IA - Cafe 58 HH - Bodek Lounge Inn at Penn - Woodlands Inn at Penn - Reg./St. Marks Sheraton - University Suite HH - Golkin IA - Amado Recital Hall Sheraton - Ben Franklin I Sheraton - Fairmount Sheraton - Chestnut HH - Ben Franklin IA - G7 CCH - Terrace TBD Inn at Penn - Woodlands
3 p.m.–3:30 p.m. 3:15 p.m. 3:30–5:30 p.m.	BA BB BC BD BE BF BG BH BI	Exhibit Hall: Afternoon Snack Break  Monday Amazon Kindle Raffle Drawing  Panel: Physics First Discussion – Success Stories in the Delaware Valley  Leadership Models in Science  The Art and Science of Teaching  PER: Attitudes  Video Analysis in Undergraduate Education  Innovations in Teaching Astronomy  PER Around the World  Continuing Teacher Preparation: Inservice Professional Development  What Works in the Pre-College Classroom	HH - Hall of Flags/Bodek HH - Hall of Flags Sheraton - Ben Franklin I Sheraton - Ben Franklin II Sheraton - Ben Franklin III HH - Class of 49 Sheraton - William Tell Suite Sheraton - Ben Franklin V CCH - Claudia Cohen Terrace Sheraton - Ben Franklin IV IA - Amado Recital Hall  Philadelphia Frigics The Experimental Core



3:30–5:30 p.m. 5:30-6:30 p.m. 5:30–7 p.m. 5:30–7 p.m. 5:30–7 p.m. 5:30–7 p.m. 5:30–7 p.m. 5:30–7 p.m. 7–8:30 p.m.	BJ	Introductory Labs/Apparatus Undergraduate Awards Reception Committee on Physics in Two-Year Colleges Committee on Professional Concerns Committee on Space Science and Astronomy Committee on Physics in High Schools PIRA Business Meeting Benjamin Franklin Performance Can Computational Modeling be Accessible to Introductory Students?	HH - Golkin IA - Cafe 58 HH - Golkin IA - G7 IA - G01 Green HH - Class of 47 IA - Amado Recital Hall CCH - Claudia Cohen Terrace Sheraton - Ben Franklin I
7–8:30 p.m. 8:30–8:30 p.m.	CB CC CD CE CF CG CH CI CJ CK PST-1	Labs at Many Levels Teaching Environmental Physics in the Undergraduate Curriculum iPad & iPhone Apps and Mobile Devices in the Classroom Panel: Writing for Academic Journals Video Analysis in the High School and Introductory College Classroom Mentoring Minority Students Oral History – Methods and Examples Different Research-based Curricula Promote Different Agendas in Research Undergraduate Research Assessing Student Learning in the Introductory Lab Poster Session 1	Sheraton - Ben Franklin II Sheraton - Ben Franklin III Sheraton - Ben Franklin IV Sheraton - Ben Franklin V Sheraton - William Penn Suite CCH - Claudia Cohen Terrace HH - Class of 49
TUESDAY, July 31			
7–8 a.m. 7 a.m.–4:30 p.m. 7:30–8:30 a.m. 8 a.m.–5 p.m. 8 a.m–5 p.m. 8 a.m–5 p.m. 8-10 a.m. 8:30–10:30 a.m. 8:30–10:30 a.m. 8:30–10:20 a.m. 8:30–10:20 a.m. 8:30–10:30 a.m. 8:30–10:30 a.m. 8:30–10:30 a.m. 8:30–10:30 a.m.	DA DB DC DD DE DF DG DH DI DJ	AAPT Fun Run/Walk  REGISTRATION  Physics Bowl Advisory Committee High School Physics Photo Contest Viewing & Voting TYC Resource Room PIRA Resource Room Poster Session II Set-up International Perspectives on Laboratory Instruction Physics and Society Teaching Scientific Programming from Intro to Upper Level Physics Preparing Teachers to Serve Diverse Communities Upper Division Undergraduate Education PER: Topical Understanding Intro to Advanced Physics of Entertainment PER: Problem Solving I PER: Student Reasoning I Using Research-based High School PER Curriculum in Teacher Preparation	31st and Walnut HH - Reading Room IA - G01 Green HH - Hall of Flags Balcony HH - Reading Room Alcove HH - Platt Rehearsal HH - Bistro Sheraton - Ben Franklin I Sheraton - Ben Franklin II Sheraton - Ben Franklin III Sheraton - Ben Franklin IV Sheraton - Ben Franklin IV Sheraton - Ben Franklin V HH - Class of 49 Sheraton - William Penn Suite CCH - Terrace IA - Amado Recital Hall HH - Golkin
8:30–10:30 a.m. 8:30–10:30 a.m. 10 a.m.–4 p.m.	PTRA-2	PTRA presents Everyday Einstein: GPS & Relativity  Exhibit Hall Open (coffee break, 10 a.m.)	DRL - Room 3N6 HH - Bodek and Hall of Flags
10:45 a.m.  11 a.m12 p.m.  12-1 p.m.  12-1:30 p.m.  12:15-1:15 p.m.  12:30-1:50 p.m.  1:30-2:30 p.m.  1:30-3 p.m.  1:30-3 p.m.	Plenary CW01 Crkbrl-03 Crkbrl-04 Crkbrl-05 CW02 EA EC ED EE	Tuesday B&N NOOK Raffle Drawing  Sizing Up the Universe: J. Richard Gott  Expert TA Commercial Workshop  Committee on Science Education for the Public  Committee on the History & Philosophy of Physics  Committee on Minorities in Physics  Committee on International Physics Education  Past Officers Luncheon  Crackerbarrel for Solo PERs  Common Core Framework and Physics Standards for College Success  YouTube Sharathon Crackerbarrel  Book Signing by J. Richard Gott  ALPhA Meeting  Pearson Commercial Workshop  The Coolest Experiment You Teach (beyond the first year)  Faculty Peer Mentoring  Preparing Teachers to Integrate Labs into Instruction  Antique Electrostatic Apparatus	HH - Hall of Flags  Inn at Penn - Woodlands Ballroom  Sheraton - University Suite  HH - Branchfeld  IA - G7  IA - G16  HH - Golkin  HH - Ben Franklin  Sheraton - Ben Franklin II  Sheraton - Ben Franklin IV  Inn at Penn - Woodlands Foyer  IA - G01 Green  Inn at Penn - Regent/St. Marks  Sheraton - Ben Franklin II  Sheraton - Ben Franklin III  Sheraton - Ben Franklin III  Sheraton - Ben Franklin IIII
1:30–2:40 p.m. 1:30–2:40 p.m. 1:30–3 p.m. 1:30–3 p.m.	EF EG EH	PER in the Pre-college Classroom Using a Planetarium to Teach Astronomy PER: Problem Solving II Using ISLE to Analyze Simple Experiments	HH - Class of 49 IA - Amado Recital Hall Sheraton - Ben Franklin V Sheraton - William Penn Suite

1:30–3 p.m. 1:30–3 p.m. 2–2:50 p.m. 3:15–3:45 p.m. 3:15 p.m. <b>3:30–4:30 p.m.</b>	EJ EK EB	Two-Year Colleges Poster Session LHC Data for Physics Teachers and Students Continuing Teacher Preparation: Inservice Professional Development II Exhibit Hall: Afternoon Snack Break Tuesday B&N NOOK Raffle Drawing Space-Time, Quantum Mechanics, Large Hadron Collider–N. Arkani-Hamed	HH - Reading Room Alcove CCH - Claudia Cohen Terrace Sheraton - Ben Franklin I HH - Hall of Flags/ Bodek HH - Bodek Lounge Inn at Penn - Woodlands Ballroom
4:30–6 p.m. 4:30–6 p.m. 4:30–6 p.m. 4:30–6 p.m. 4:30–6:30 p.m. 6–6:30 p.m. 6–7:30 p.m. 7:30–8:30 p.m. 9–10 p.m.	CW03	Committee on Physics in Undergraduate Education Committee on Physics in Pre-High School Education Committee on Apparatus Committee on the Interests of Senior Physicists Vernier Software: New Data Collection Tools for Physics New Faculty Reunion Poster Session II Philadelphia Trolley Tour AAPT Demo Show	IA - G01 Green IA - G7 HH - Class of 47 IA - G16 Inn at Penn - Regent/St. Marks IA - G16 HH - Bistro HH pickup Inn at Penn - Woodlands Ballroom

WEDNESDAY, Augu
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WEDITEODAI, August	• •		
7-8:30 a.m.		Programs Committee II	Sheraton - Chestnut
7-8:30 a.m.		Governance Structure Committee (COGS)	IA - G01 Green
8 a.m3 p.m.		PIRA Resource Room	HH - Platt Rehearsal
8 a.m3 p.m.		REGISTRATION	HH - Reading Room
8 a.m3 p.m.		TYC Resource Room	HH - Reading Room Alcove
8:30-10 a.m.	FA	Bridge Experiences: Increasing Participation of Underrepresented Minorities	Sheraton - Ben Franklin I
8:30-10:30 a.m.	FB	PER: Investigating Classroom Strategies I	HH - Class of 49
8:30-10:30 a.m.	FC	Panel: Multi-Disciplinary-based Education Research Groups	Sheraton - Ben Franklin II
8:30-10:30 a.m.	FD	Reforming the Introductory Physics Course for Life Science Majors VII	IA - Amado Recital Hall
8:30-8:50 a.m.	FE	Developing Student's Scientific Literacy	Sheraton - Ben Franklin IV
8:30-10:30 a.m.	FG	Introductory Courses	Sheraton - Ben Franklin V
8:30-10:30 a.m.	FH	Teacher Preparation	Sheraton - William Penn Suite
8:30-10:30 a.m.	FI	Teaching Physics Around the World	Sheraton - Ben Franklin III
8:30-10 a.m.	FJ	PIRA Session: International Outreach	CCH - Claudia Cohen Terrace
8:30-10:30 a.m.	FK	Assessing Pedagogical Content Knowledge in Teacher Preparation	HH - Golkin
8:30-10:30 a.m.	PTRA-3	Using & Adapting OSP- & Physlet-based Materials for an Interactive Class	RNL - 3N6
9-10 a.m.	FF	Interactive Lecture Demonstrations—What's New?	Sheraton - Ben Franklin IV
10:30-11 a.m.		Great Book Giveaway; Kickoff for 2013 Winter Meeting New Orleans	HH - Reading Room
11 a.m12:15 p.m.	Awards	Millikan Medal – Phil Sadler; Distinguished Service Citations	Inn at Penn - Woodlands Ballroom
12:15-1:15 p.m.	Crkbrl-06	Do We Have Standards? Moving Towards a Definition of Physics Mastery	HH - Class of 49
12:15–1:15 p.m.	Crkbrl-07	Crackerbarrel for PER Graduate Students	CCH - Claudia Cohen Terrace
12:15–1:15 p.m.	Crkbrl-08	Crackerbarrel for Faculty in Small Departments	IA - Amado Recital Hall
12:15–1:15 p.m.		Nominating Committee II	IA - G01 Green
12:15–1:15 p.m.		Fredrick and Florence M. Bauder Endowment Committee	IA - G7
12:15–1:30 p.m.		Audit Committee	IA - G16
1:30–3 p.m.	GA	Teaching Physics in Urban and Suburban Settings	Sheraton - Ben Franklin I
1:30–3 p.m.	GB	PER: Investigating Classroom Strategies II	Sheraton - Ben Franklin II
1:30-2:50 p.m.	GC	Technologies	Sheraton - Ben Franklin III
1:30-1:50 p.m.	GD	Great Teachers	Sheraton - Ben Franklin IV
1:30-3 p.m.	GE	The Third Eye Returns	Sheraton - Ben Franklin V
1:30-3 p.m.	GF	PER: Student Reasoning II	HH - Class of 49
1:30-3 p.m.	GG	Dollar Store Labs	Sheraton - William Penn Suite
1:30-3 p.m.	GH	PER: Teacher Preparation and Development	CCH - Claudia Cohen Terrace
1:30-3 p.m.	GI	Physics for All	IA - Amado Recital Hall
1:30-3 p.m.	GL	Advanced Physics Topics / Post Deadline Session	HH - Golkin
1:30-3 p.m.	GM	Panel: Giving Voice in the Classroom	Sheraton - University Suite
2-3 p.m.	GK	Middle and High School Teaching	Sheraton - Ben Franklin IV
3–6 p.m.	PER	Physics Education Research (PER) Bridging Session	Inn at Penn - Woodlands Ballroom
6:30-8 p.m.		Physics Education Research Conference (PERC) Banquet	Sheraton - Ben Franklin Ballroom
6:30–8 p.m. 8:30–10 p.m.		Physics Education Research Conference (PERC) Banquet PERC Poster Session	Sheraton - Ben Franklin Ballroom HH - Hall of Flags

