9–10 E12 Using Authentic Astronomy Research in the Classroom Meeting R. 03
9–10 E13 Make Do Play and Learn Sharathon–Iron Chef Physics Meet. R. 09
9–10 K-12 Resource Room: STEP UP in the HS Physics Classroom Meet. R. 08
10–4 Exhibit Hall Open Exhibit Hall A
10–4 PIRA Resource Room Exhibit Hall A
10–4 Apparatus Competition Exhibit Hall A
10–4 TYC Resource Room Exhibit Hall A
10–10:30 K-12 R. R: Topical Disc.: Integrating Computer Science Meeting R. 08
10–11 F01 Education Research in K-12, Part 2 Ballroom A02
10–11 F02 21st Century Physics in the Classroom II Ballroom A03
10–11 F03 Innovations in the Classroom Ballroom A04
10–11 F04 PER that Helps Investigate Physics Program Effectiveness Ball. A05
10–11 F05 PER into Reasoning in UG Physics Ballroom A06
10–11 F06 Being a Student-Ready Physics Classroom Ballroom A07
10–11 F07 Navigating the Faculty Career Ballroom A08
10–11 F08 Inclusive Teaching in Labs Ballroom A09
10–11 F09 Advances in Introductory Courses II Ballroom A10
10–11 F10 Augmented and Virtual Reality for Physics Education Ballroom A11
10–11 F11 Building Quantum Information Science and Engineering Curriculum for a Diverse Community of Learners – II Meeting Room 02
10–11 F12 Panel: Exploring Astronomy–Touch Using 3D Printing Meeting R. 03
10–11 F13 Accessibility & Inclusivity in HS Classroom Meeting Room 09
10–11 PASCO Scientific: Engaging Mechanics Demos Using the Smart Cart Demonstration Kit Meeting Room 04
10:30–11 K-12 Resource Room: Topical Discussion Meeting Room 08
11–11:30 Exhibit Hall Break and Raffle Exhibit Hall A
11–11:30 AWARDS: AAPT DSC and Fellow awards **Ballroom A01**
11:30–12 AWARDS: The 2023 Paul Zitzewitz Excellence in K-12 Physics Teaching Award – Alice Flarend **Ballroom A01**
12–12:30 Plenary: TEAM-UP Together: Supporting African American Student Success through Systemic Change – TEAM UP Together Update – Arlene Knowles **Ballroom A01**
12:30–1:30 McGraw Hill Education: Introduction to Physics: Interactive Learning Resources That Help Students Build Skills to be Successful Meeting Room 02
12:30–1:30 K-12 Meet-up Meeting Room 10
12:30–1:30 Accessibility Meet-up Meeting Room 03
12:30–2 Safe Solar Observing Share-A-Thon Outdoor Pavilion
1–1:30 Exhibit Hall Break and Raffle Exhibit Hall A
1–2 PASCO Scientific: Teaching Rotation with the Meter Stick Torque Set Meeting Room 04
2–3 G01 Fostering Community Through Learning Opportunities Ballroom A02
2–3 G02 Astronomy and the Search for Life in the Universe I Ballroom A03
2–3 G03 Assessing Upper-Level Courses Ballroom A04
2–3 G04 PER & DEI I Ballroom A05
2–3 G05 PER about Student Collaboration Ballroom A06
2–3 G06 PER into Student Attitudes about Assessment Ballroom A07
2–3 G07 Institutional Challenges for Physics Teacher Prep Ballroom A08
2–3 G08 Improving Student Learning of Quantum Mechanics II Ballroom A09
2–3 G09 Research Validated Interactive Lecture Demonstrations to Improve Learning in Lecture (and at Home) Ballroom A10
2–3 G10 Effective Practices in Educational Technology Ballroom A11
2–3 G11 Making Physics Labs and Apparatus More Accessible Meet. R. 02
2–3 G12 PER Early Career Topical Discussion Meeting Room 03
2–3 G13 Workshop 3: Demos and Hands-on Activities Meeting Room 09
2:30–3:30 K-12 Resource Room: A Dive into the Standards Meeting Room 08
3–4 H01 Fostering Community – Professional Learning Opportun. II Ball. A02
3–4 H02 Astronomy and the Search for Life in the Universe Ballroom A03
3–4 H03 Labs/Apparatus Ballroom A04
3–4 H04 PER & DEI I Ballroom A05
3–4 H05 PER into Being a Physics Educator (or LA) and Bolstering Physics Identity Ballroom A06
3–4 H06 How to Analyze and Assess when Conducting PER Ballroom A07
3–4 H07 Mentoring Students for Careers in Physics Ballroom A08
3–4 H08 Upper Division Undergrad Ballroom A09
3–4 H09 Teaching Intro Physics for Life Sciences, Part 2 Ballroom A10
3–4 H10 Effective Practices in Educational Technology II Ballroom A11
3–4 H11 Making Physics Labs and Apparatus More Accessible Meeting R. 02
3–4 H12 Professional Skills for PER Students: Round Tables Meeting R. 03
3–4 H13 30 Demos in 60 Minutes Meeting Room 09
3:30–4 K-12 Resource Room: Physics in Elementary Meeting Room 08
4–5 Klopsteg Memorial Lecture Award – Jeffrey Bennett **Ballroom A01**
5–5:30 BREAK
5:30–6:30 **Poster Session II** Exhibit Hall A
6:30–7:30 LGBTQ+ Meet-Up Meeting Room 10
6:30–7:30 Early Career & First Timers' Gathering (reservation) Sheraton Public Market Bar
6:30–7:30 Apparatus Committee Ballroom A06
6:30–7:30 Diversity in Physics Committee Ballroom A07
6:30–7:30 Physics in High Schools Committee Ballroom A02
6:30–7:30 Research in Physics Education Ballroom A03
6:30–7:30 Space Science and Astronomy Committee Ballroom A05
7–8:30 AAPT Board of Directors Meeting III Meeting Room 01

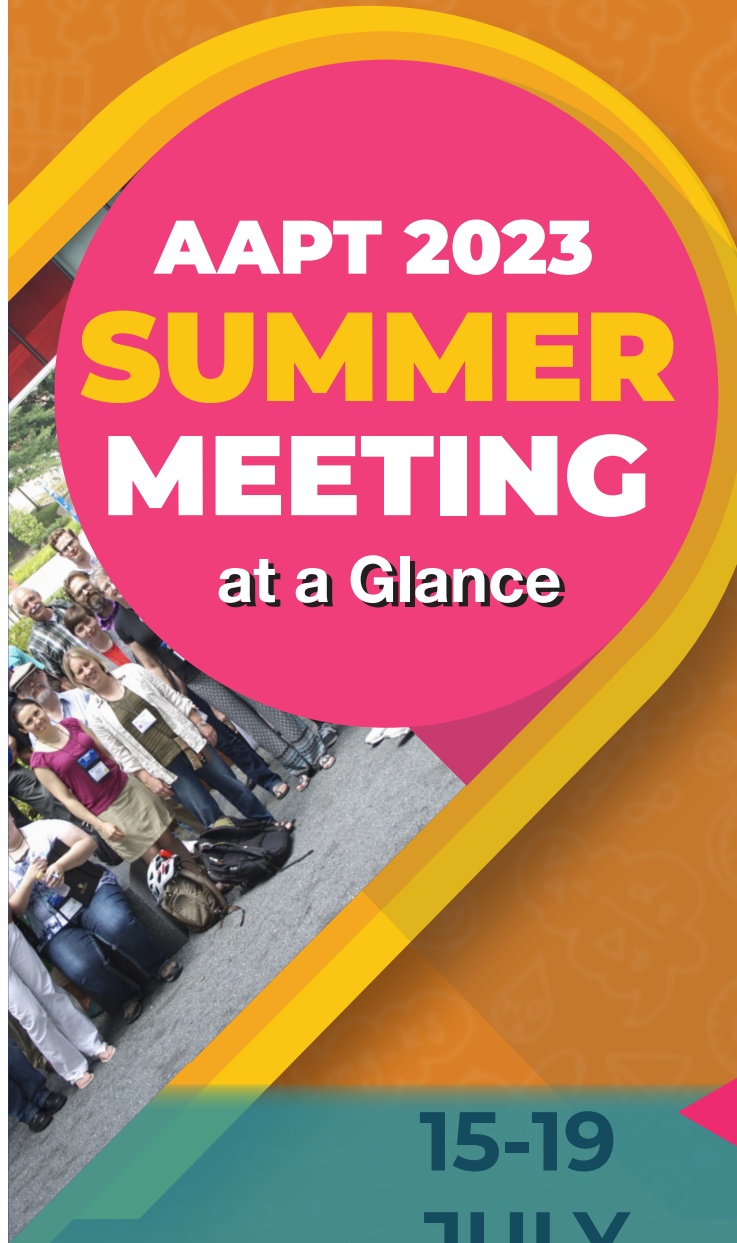
Wednesday, July 19, 2023

8–3 **REGISTRATION PICKUP** **A01-A11 Pre-function Area**
8–3 **LACTATION ROOM** Meeting Room 07
8–3 **QUIET ROOM** Meeting Room 06
8–9 Phil Kass, vice provost of academic affairs at UC-Davis, How the University of California has adapted to a race-conscious ban on faculty hiring since 1996, with implications for student admission Ballroom A01
8–9 Area Committee Leadership (Programs Committee II) Meeting R. 12/13
8–9 Governance Structure Committee Sheraton–Bevis
8–9 PER Leadership Organizing Council Sheraton–Bataglieri
8–9 Venture Fund Review Committee Sheraton–Carr
8:45–9 BREAK
9–10 I01 Effective Practices in K-12, Part 3 Ballroom A02
9–10 I02 Innovations in Teaching Astronomy Ballroom A03
9–10 I04 PER & DEI II Ballroom A05
9–10 I05 PER & Assessment Ideas IV Ballroom A06
9–10 I06 PER into Student Understanding Ballroom A07
9–10 I07 Developing and Evaluating Upper-Level Experiences: Labs Ball. A08
9–10 I08 Teamwork in Labs: Guidance for Instruction Ballroom A09
9–10 I09 Some Interesting Bauder Fund Projects Ballroom A10
9–10 I10 Uncommon Uses for Common Things Ballroom A11
9–10 I11 Science Communication Meeting Room 02
9–10 I12 Round Table: Graduate Education in Physics Meeting Room 03
9–10 I13 Workshop 1: Technology for Labs Meeting Room 04
10–11 J01 Effective Practices in K-12 II Ballroom A02
10–11 J02 Innovations in Teaching Astronomy Ballroom A03
10–11 J03 Effective Practices for Developing Scientific Thinking, Reasoning, and Decision-Making Abilities–Investigating Science Practices Ballroom A04
10–11 J04 PER & DEI II Ballroom A05
10–11 J05 PER & Assessment Ideas V Ballroom A06
10–11 J06 PER into Student Understanding (including assessment instruments) Ballroom A07
10–11 J07 Supporting Women Physics Students Ballroom A08
10–11 J08 Teamwork in Labs: Guidance for Instruction Ballroom A09
10–11 J09 Some Interesting Bauder Fund Projects Ballroom A10
10–11 J10 Being a Student-Ready Physics Class – II Ballroom A11
10–11 J12 JNIFPER Round Table Meeting Room 03
10–11 J13 Panel: Evolution of AAPT Lab Recommendations Meeting Room 04
11–11:30 AWARDS: PhysTEC Teacher of the Year Award Talk – Danielle Buggé **Ballroom A01**
11:30–12:30 Plenary: Diversity in Physics and Astronomy Update – Rachel Ivie
12–2 Lunch (on your own)
2–4 **Bridging Plenaries and PERC Kickoff**

AAPT PHYSICS EDUCATION®

AAPT 2023 SUMMER MEETING

at a Glance



15-19 JULY

Sacramento, CA

Saturday, July 15, 2023

7–4 **REGISTRATION PICKUP** **A01-A11 Pre-function Area**
7–4 **LACTATION ROOM** Meeting Room 07
7–4 **QUIET ROOM** Meeting Room 06

(WORKSHOPS–Registration required)

8–12 Astronomy Data, Image Analysis, and Research Using Web-based JS9 Ballroom A05
8–12 Exploring Physics through the Lens of Systems Ballroom A10
8–12 Highlights from 20+ Years of the PTSOS Workshop Programs Ballroom A06
8–12 PIRA Lecture Demonstrations I & II Condensed Ballroom A09
8–12 Supporting Students' Understanding of Work and Energy through Careful Use of Language Ballroom A08
1–5 3D Printed Interferometers Ballroom A05
1–5 Fun, Engaging, Effective, Research-Validated Lab Activities and Demos for Introductory University, College and HS Physics Sheraton–Tofanelli
1–5 MARVLS–Manipulable Augmented Reality Visualizations Sher.–Compagno
1–5 Optics from Aristotle to Newton Ballroom A08
1–5 Strengthening Reasoning in AP Physics (and Beyond) Ballroom A06
1–5 Tools for Using Smartphones in the Astronomy Classroom Ballroom A10
5–7 AAPT Board of Directors Meeting I Meeting Room 01
7:30–8:30 Investment Advisory Committee Meeting Room 01

Sunday, July 16, 2023

7–4 **REGISTRATION PICKUP** **A01-A11 Pre-function Area**
7–4 **LACTATION ROOM** Meeting Room 07
7–4 **QUIET ROOM** Meeting Room 06
8–8:45 Meetings Location Committee Meeting Room 03
8–8:45 Nominating Committee I Sheraton–Bataglieri
8–8:45 Publications Committee Sheraton–Bevis
8–9 MPC and AMP 24 Meeting Room 04

(WORKSHOPS–Registration required)

8–5 Learn Physics While Practicing Science: Introduction to ISLE Ballroom A07
8–12 Biomechanics Introductory Lab Activities Ballroom A10
8–12 Coding Integration and Data Science Integration in HS Physics Science Ballroom A09
8–12 Creating Curricular Materials to Accompany Physics Simulations Ball. A11
8–12 Developing the Next Generation of Physics Assessments Ballroom A03
8–12 Interactive Video-Enhanced Tutorials for Problem Solving Ballroom A02
8–12 Maximizing Learning and Engagement with Demos Ballroom A08
9–3:30 AAPT Board of Directors Meeting II Meeting Room 01
1–5 AP Physics Course Revisions for Fall 2024 Ballroom A02
1–5 Intermediate and Advanced Labs Ballroom A03
1–5 Introductory Labs to Promote Scientific Reasoning Ballroom A04
1–5 Let's Talk about Equity: The Underrepresentation Curriculum Ballroom A05
1–5 LHC Physics in the Classroom Ballroom A06
1–5 Novel Observations in Mixed Reality (Virtual Reality) Ballroom A08
1–5 PICUP: Integrating Computation into Intro. Physics at TYCs Ballroom A09
1–5 Professional Development for Emerging Education Researchers Ball. A11
3:30–4:30 ALPhA Open Meeting Meeting Room 02
3:30–4:30 Resource Letters Committee Meeting Room 01
4:30–5:30 Area Committee Leadership (Programs Committee I) Meeting R. 03
4:30–5:30 Section Representative and Officers Meeting Room 04
5–8 **REGISTRATION PICKUP** **A01-A11 Pre-function Area**
5–6:30 Dinner Break (on your own)
6:30–8 PIRA Resource Room Exhibit Hall A
6:30–8 Apparatus Competition Exhibit Hall A
6:30–8 TYC Resource Room Exhibit Hall A
6:30–8 Welcome Reception and Exhibit Hall Opening **Exhibit Hall A**
7–8 **Poster Session I** Exhibit Hall A

If you have an accessibility request, please email programs@aapt.org

Monday, July 17, 2023

7–4 **REGISTRATION PICKUP** **A01-A11 Pre-function Area**
7–10 **LACTATION ROOM** Meeting Room 07
7–10 **QUIET ROOM** Meeting Room 06
7:30–8:45 First Timers Gathering Meeting Room 01
7:30–8:45 TYC Meet-up Meeting Room 02
7:45–8:45 Graduate Education in Physics Committee Sheraton–Carr
7:45–8:45 History & Philosophy in Physics Commitee Sheraton–Compagno
7:45–8:45 Laboratories Commitee Sheraton–Bevis
7:45–8:45 Physics in Undergraduate Education Commitee Sheraton–Tofanelli
8:45–9 BREAK I
9–10 A01 Improving Student Learning of Quantum Mechanics I Ballroom A02
9–10 A02 Organizing for Successful Solar Eclipse Events Ballroom A03
9–10 A03 Effective Practices for Developing Scientific Thinking Ballroom A04
9–10 A04 PER: Assessment Ideas 2 Ballroom A05
9–10 A05 PER: Student Experiences & DEI Ballroom A06
9–10 A06 Teaching about How Science is Done to Impact Careers Ballroom A07
9–10 A07 Decolonizing Physics in the Curriculum Ballroom A08
9–10 A08 Calling TYCs! About OPTYCs: Organization for Physics at TYCs Ball. A09
9–10 A09 Teaching IPLS Ballroom A10
9–10 A10 Accessible Lab Equipment Ballroom A11
9–10 A11 Climate & Energy in the Classroom Meeting Room 02
9–10 A12 Panel: Promoting EDI in Physics through Social Media Meeting R. 03
9–10 K-12 R. Room: Topical Discussion: AP/IB Physics Meeting Room 08
9:30–10:30 A13 (TYC) Discourse in Classroom Meeting Room 09
10–5 **Exhibit Hall Open** **Exhibit Hall A**
10–5 PIRA Resource Room Exhibit Hall A
10–5 Apparatus Competition Exhibit Hall A
10–5 TYC Resource Room Exhibit Hall A
10–11 B01 What Knowledge Counts as Science? Ballroom A02
10–11 B02 Organizing for Successful Solar Eclipse Events Ballroom A03
10–11 B03 Effective Practices for Developing Scientific Thinking Ballroom A04
10–11 B04 PER: Assessment Ideas 2 Ballroom A05
10–11 B05 PER: Student Experiences & DEI Ballroom A06
10–11 B06 Teaching about How Science is Done in Your Course Ballroom A07
10–11:30 B07 Doing Physics and Being ___ + Decolonizing Physics Ballroom A08
10–11 B08 Calling TYCs! About OPTYCs: Organization for Physics at TYCs Ball. A09
10–11 B09 Teaching IPLS – Interactive Poster Session Ballroom A10
10–11 B10 Accessible Lab Equipment Ballroom A11
10–11 B11 Updates from PICUP: Integrating Computation Meeting Room 02
10–11 B12 Panel: Diversifying PER Student Subjects for Inclusivity Meeting R. 03
10–11 Expert TA: An Online Homework Solution and Custom Publishing for Intro Physics Meeting Room 04
10–11 K-12 R. Room: Topical Discussion: Making Physics Accessible Meeting R. 08
10:30–11:30 B13 (TYC) Discourse in Classroom Meeting Room 09
11–11:30 Exhibit Hall Break and Raffle **Exhibit Hall A**
11:30–12:30 Plenary I: Cary Supalo **Ballroom A01**
12:30–1:30 Educational Technologies Committee Ballroom A09
12:30–1:30 Teacher Preparation Committee Ballroom A05
12:30–1:30 Interests of Senior Physicists Committee Ballroom A04
12:30–1:30 Women in Physics Committee Ballroom A07
12:30–1:30 Finance Committee Ballroom A03
12:30–1:30 Lotze Scholarship Committee Ballroom A06
12:30–1:30 PIRA Committee Ballroom A11
12:30–1:30 Review Board Ballroom A08
12:30–2 Early Career Professionals Speed Networking Meeting Room 10
12:30–2 International Meet-up Meeting Room 01
12:30–2 Lunch Break (on your own)
1–2 K-12 R. Room: California & Nevada Teachers Meet-up Meeting R. 08
1–2 Vernier Science: Beyond Logger Pro®: Revolutionize Learning with Vernier Technology and Tools Meeting Room 04
2–3 C01 Social Media to Connect Teachers Ballroom A02
2–3 C02 21st Century Physics in the Classroom Ballroom A03
2–3 C03 Effective Practices for Scientific Thinking, Reasoning in Labs Ball. A04
2–3 C04 PER: Building a Community of Practice Ballroom A05
2–3 C05 PER: Methodology Ballroom A06
2–3 C06 Student-Ready Physics in Your Course Ballroom A07
2–3 C07 Teaching about How Science is Done I & II Ballroom A08
2–3 C08 Calling TYCs: Contributed talks by Two-Year College Faculty Ballroom A09
2–3 C09 Workshop: Active Learning from the Biomedically Relevant Ballroom A10
2–3 C10 Physics with Smartphones Ballroom A11
2–3 C11 Data Science in Undergraduate Physics Curriculum Meeting Room 02
2–3 C12 Panel: Networking & Other Benefits to Mutual Mentoring Meeting R. 03
2–3 C14 Visualization in a Planetarium Exhibit Hall A
2:30–3:30 K-12 Resource Room: Intern Talks Meeting Room 08
2:30–3:30 Vernier Science Education: Connecting Physics and Physiology through Vernier Video Analysis® Meeting Room 04
2:30–4 C13 LaTeX is not Difficult to Learn, and You and Your Students Should Use it! Meeting Room 09
3–4 D02 21st Century Physics in the Classroom Ballroom A03
3–4 D03 Effective Practices for Developing Scientific Thinking in Labs Ball. A04
3–4 D04 PER: Building a Community of Practice Ballroom A05
3–4 D05 PER: Active Engagement Ballroom A06
3–4 D07 Teaching about How Science is Done I & II Ballroom A08
3–4 D08 Fostering Cooperative Team Environments Ballroom A09
3–4 D09 Active Learning Strategies from the Biomedically Relevant Ballroom A10
3–4 D10 PIRA Session – 3D Printed Apparatus for Intro Labs Ballroom A11
3–4 D11 Data Science in the Undergraduate Curriculum Meeting Room 02
3–4 D12 10 Years of PERCoGS: What's Next? Meeting Room 03
3–4 D14 Interaction in Action: Benefits of Interactive Planetarium Exhibit Hall A
3:30–4:30 K-12 Resource Room: Physics for 9th Graders Meeting Room 08
4–4:30 Exhibit Hall Break, Raffle and Robert Hilborn Retirement Celebration **Exhibit Hall A**
4:30–5:30 Plenary II: Anna Quider **Ballroom A01**
5:30–6:30 Awards Committee Ballroom A04
5:30–6:30 Contemporary Physics Committee Ballroom A03
5:30–6:30 International Physics Education Committee Ballroom A07
5:30–6:30 Physics in Pre-High School Education Committee Ballroom A06
5:30–6:30 Physics in Two-Year Colleges Committee Ballroom A08
5:30–6:30 Professional Concerns Committee Ballroom A05
5:30–6:30 Science Education for the Public Committee Ballroom A10
5:30–6:30 PERTG Town Hall Ballroom A09
6:30–7:30 SPS Awards and Trivia Dinner Meeting Room 01
6:30–8 PASCO Event Sheraton Grand Ballroom
7:30–8:30 Add SPS Advisor Meet and Greet Meeting Room 01
8–9 Demo Show Sheraton Grand Ballroom
9:30–11:59 Game Night Meeting Room 01

Tuesday, July 18, 2023

6–8 AAPT Fun Run and Walk Offsite (Sheraton Lobby)
7–4 **REGISTRATION PICKUP** **A01-A11 Pre-function Area**
7–4 **LACTATION ROOM** Meeting Room 07
7–4 **QUIET ROOM** Meeting Room 06
7:45–8:45 PTRA Oversight Committee Meeting Room 09
8–8:45 Membership and Benefits Committee Meeting Room 04
8:45–9 BREAK
9–10 E01 Education Research in K-12, Part I Ballroom A02
9–10 E02 21st Century Astronomy in the Classroom Ballroom A03
9–10 E03 Using, Adapting and Contributing to Living Physics Portal Ballroom A04
9–10 E04 PER into Inclusivity and Accommodations Ballroom A05
9–10 E05 PER into Reasoning in UG Physics Ballroom A06
9–10 E06 Being a Student-Ready Physics Classroom Ballroom A07
9–10 E07 PER & Assessment Ideas III Ballroom A08
9–10 E08 Inclusive Teaching in Labs Ballroom A09
9–10 E09 Advances in Introductory Courses I Ballroom A10
9–10 E10 Digital Measurement, IoT, & AI Technology Ballroom A11
9–10 E11 Building Quantum Information Science & Engineering Curriculum for a Diverse Community of Learners – I Meeting Room 02