HPS Professional Development School (PDS) Agenda
West Lafayette, IN
July 9-10, 2015

July 9, 2015
7:30 AM  Continental Breakfast and Welcome
8:00 AM  Session Begins

Historical Review of Radiation Risk Estimates, Quantities and Units
Jerold T. Bushberg, Ph.D., UC Davis Health System

Methods for Internal and External Dose Calculations
Mutty Sharfi, CHP, MJW Companies

Break

Uncertainties in Internal Dose Estimates
Richard Toohey, Ph.D., M.H. Chew and Associates

Uncertainties in External Dose Estimates
R. Craig Yoder, Ph.D., Landauer, Inc.

Lunch

Using Epidemiology to Develop Radiation Risk Models
David Pawel, Ph.D., U.S. Environmental Protection Agency

Applying Risk Estimates in Radiation Protection
Richard Vetter, Ph.D., Mayo Clinic

Break

Current Radiobiological Issues in Determining Radiation Risks
John Zimbrick, Ph.D., Colorado State University

Dinner  Evening Program to be Announced

July 10, 2015
7:30 AM  Continental Breakfast
8:00 AM  Session Begins

Accounting for Uncertainty in Retrospective Dose Estimation to Support Epidemiological Investigations of Radiation Risk
Steve Simon, Ph.D., National Cancer Institute

How Complex Uncertainties in Dose Estimation Can Influence Risk Estimates in Epidemiology
F. Owen Hoffman, Ph.D., Oak Ridge Center for Risk Analysis

Break

Evaluation of Uncertainties in Risk and Probability of Causation using the NIOSH-IREP Computer Code
David Kocher, Ph.D., Oak Ridge Center for Risk Analysis

Lunch

Estimation of Past, Present, and Future Cancer Risks Using the NCI RadRAT Computer Code
A. Iulian Apostoaei, Ph.D., Oak Ridge Center for Risk Analysis

Probability of Causation and Application in Compensation Programs
Stuart Hinnefeld, CHP, NIOSH

Break

Communication of Radiation Risks: How People Interpret Risk Estimates
Ray Johnson, Radiation Safety Counseling Institute

Accommodations - Please inform the hotel you are with the HPS PDS for the best rates:

Purdue Memorial Union, 765-494-8900; $99-$125 per night
Holiday Inn Lafayette City Centre, 765-420-1505; $120 per night
Purdue University Residence Hall, email jfschwei@purdue.edu for this option; $65 suite with private bath, all rooms air conditioned
Hilton Garden Inn West Lafayette Wabash Landing, 765-743-2100
Four Points by Sheraton West Lafayette, 765-463-5511, or 866-716-8133
Health Physics Society’s 60th Annual Meeting
12-16 July 2015 - Indianapolis, Indiana

REGISTRATION FEES: (Mark Appropriate Box)  

<table>
<thead>
<tr>
<th>Professional Development School Registration Fee 9-10 July 2015, Purdue University:</th>
<th>Preregistration Fees</th>
<th>On-Site Fees</th>
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<tbody>
<tr>
<td>PDS Registration <em>(Thursday Night Out)</em></td>
<td>$650.00</td>
<td>$750.00</td>
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<tr>
<td>PDS Full-Time Student Registration <em>(Thursday Night Out)</em></td>
<td>$325.00</td>
<td>$425.00</td>
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MEETING REGISTRATION FEES 12-16 July 2015:  

| HPS Member *(Sun. Reception, Mon. Lunch, Tues. Awards Dinner)* | $430.00 | $530.00 |
| Non-Member *(Sun. Reception, Mon. Lunch, Tues. Awards Dinner)* | $170.00 | $170.00 |
| Emeritus Member *(Sun. Reception, Mon. Lunch, Tues. Awards Dinner)* | $215.00 | $265.00 |
| One Day ONLY Mon Tues Wed Thurs | $275.00 | $300.00 |
| Student (Receptions) | $7.00 | $7.00 |
| One Day ONLY Student Mon Tues Wed Thurs | $40.00 | $40.00 |
| Companion *(Receptions, Breakfast, Mon. Lunch)* | $110.00 | $110.00 |
| Emeritus Companion *(Receptions, Breakfast)* | $55.00 | $55.00 |
| HPS Member PEP Lecturer *(Sun. Recep, Mon. Lunch, Tues. Awards Dinner)* | $130.00 | $230.00 |
| HPS Member CEL Lecturer *(Sun. Recep, Mon. Lunch, Tues. Awards Dinner)* | $280.00 | $380.00 |
| Additional Tues. Awards Dinner Ticket(s) # of Tickets | $67.00 | $67.00 |
| AAHP Awards Lunch Ticket(s) *(Tues.)* CHP | $10.00 | $10.00 |
| AAHP Awards Lunch Ticket(s) *(Tues.)* Guest | $15.00 | $15.00 |

*Includes Complimentary Associate Membership for year 2015 - FIRST TIME MEMBERS ONLY

Would you like your name included on the Attendee List?  

Yes  No

SOCIAL PROGRAM  

| Cultural Trail Bike Tours *(Sat 7/11, 5:30pm)* Prereg Only, Click HERE for info | # of Tickets __No Fee |
| Downtown Orientation Tour *(Sun 7/12, 2:00-3:30pm)* Prereg Only | # of Tickets __No Fee |
| Active Indy Walking Tour, Monuments *(Mon 7/13, 9:15-11:30am)* | # of Tickets X $15 # of Tickets X $20 |
| Annual HPS 5K RUN/WALK *(Tues 7/14, 6:30-8:30am)* Run/Walk - Shirt Size: SQ M L XL XXL *(XXL is available with Preregistration Only)* | # of Tickets X $25 # of Tickets X $30 |
| 60th Anniv Dallara Indycar Factory, Motor Speedway *(Tues 7/14, 8:45am-3:15pm)* | # of Tickets X $75adult # of Tickets X $80adult |
| # of Tickets X $65kids # of Tickets X $65kids |
| Eiteljorg Museum of American Indians & Western Art *(Wed 7/15, 10am-5pm)* | # of Tickets X $10adult # of Tickets X $15adult |
| # of Tickets X $5kids # of Tickets X $10kids |
| Pub Crawl *(Wed 7/15, 6:00pm)* Pub Crawl - Shirt Size: SQ M L XL XXL XXXL *(XXL and XXXL are available with Preregistration Only)* | # of Tickets X $20 # of Tickets X $25 |
| Night Out “Animals and all that Jazz” *(Thurs 7/16, 5:00-9:00pm)* | # of Tickets X $40adult # of Tickets X $45adult |
| # of Tickets X $30kids # of Tickets X $35kids |

PAYMENT INFORMATION  

Government Requisitions are accepted for registration, however Purchase Orders are NOT accepted for PEP AAHP Social/Technical Tour Registration. HPS TAX ID # 04-6050367

Check Payment: Health Physics Society, 1313 Dolley Madison Blvd., Suite 402, McLean, VA 22101

Cardholder's Information

Card Number ___________________________ Exp. Date ___________ CV2 ___________________________

Credit Card Billing Address: ____________________________________________

Cardholder Name: ____________________________________________ Phone Number ___________

Signature: ____________________________________________ Email Address for receipt ____________________________

Please see AAHP/PEP Registration form and Disabilities information on next page

Registration Section Total $ ___________

Social Program Total $ ___________

AAHP/PEP Total (From Other Form) $ ___________

TOTAL FEES ENCLOSED $ ___________

If FAXing registration form, (703) 790-2672 please do not mail the original.
Your housing while in Indianapolis, IN: __________________________________________

DISABILITIES: The Annual Meeting is accessible to persons with disabilities. Please specify assistance required and a HPS representative will contact you.

AAHP Courses: Saturday, 7/11 - 8:00 AM - 5:00 PM
- AAHP1 Cavity Ionization in Theory and Experiment (Lucas) $275
- AAHP2 The US Regulatory Basis for Radiological Effluent Monitoring (Key) $275
- AAHP3 Nuclear Science and Technology at the WIPP (Hayes) $275

PROFESSIONAL ENRICHMENT PROGRAM
Special PEP Session: All Day Sunday, 7/12
- HAZWOPER Refresher, 8:00 AM-5:00 PM $360

Sunday, 7/12 8:00-10:00 AM
- 1-A Accelerator Physics for ES&H Professionals Part 1 (Cossairt)
- 1-B Basic Science Supports a Dose Rate Effectiveness Factor Greater than One (Brooks)
- 1-C Non-Ionizing Radiation: An Overview of Biological Effects and Exposure Limits (Edwards)
- 1-D So Now You’re the RSO: Elements of an Effective Radiation Safety Program (Morgan)
- 1-E Significance and Use of Revised ANSI N323AB for Portable Instrument Calibration (Walker)
- 1-F Introduction to Nuclear and Cyber Security for the Health Physicist (Harris)
- 1-G The Basics of Risk Mgmt & Insurance and Fire & Life Safety for Rad Safety Professionals (Emery, Gutierrez)

Sunday, 7/12 10:30 AM-12:30 PM
- 2-A Accelerator Physics for ES&H Professionals Part 2 (Cossairt)
- 2-B Practical Demonstrations for the Classroom (Cole)
- 2-C Laser Safety for Health Physicists (Edwards)
- 2-D CAP88 PC Version 4 Advanced Topics (Wood, Stuenkel, Rosnick)
- 2-E Environmental HP: Primer, Regulations, Data Mgmt and Exploration of “Sticky” Issues (Miller, Whicker)
- 2-F Physical Protection for Nuclear and Radiological Security (Walker)
- 2-G Security 101 and the Basics of Biological & Chem Safety for Radiation Safety Prof (Emery, Gutierrez)

Sunday, 7/12 2:00-4:00 PM
- 3-A Radiological Emer Response using Hotspot HP Codes & RadResponder (Buddemeier, Crawford, Palmer)
- 3-C Performing ANSI Z136-Based Laser Hazard Calculations (Edwards)
- 3-D Safety at the Convergence of Nanotechnology and Radiation-Related Activities (Hoover)
- 3-E Environmental HP: Primer, Regulations, Data Mgmt and Exploration of “Sticky” Issues (Miller, Whicker)
- 3-F Terrorist Threat and Consequence Mgmt in Radiological Security (Marianno)
- 3-G Measuring and Displaying Radiation Protection Program Metrics that Matter to Mgmt (Emery, Gutierrez)

Monday, 7/13 12:15-2:15 PM
- M-1 Where did this Come from? Lessons Learned from Bioassay Investigations (Carbaugh)
- M-2 Medical Laser Safety Program - What Health Physicists Need to Know (Elder)
- M-3 Gamma Spectroscopy for the Health Physicist (Pan)
- M-4 Truth, Trust, and Plain Language (Lazo, Classic)
- M-5 Radiation Safety’s Role in Mitigating the “Insider Threat” Risk (Emery)

Tuesday, 7/14 12:15-2:15 PM
- T-1 Monte Carlo Basics for Radiation Transport (Hertel)
- T-2 Transportation Regulations and Radiation Safety (Brown)
- T-3 Use of an Excel®-Based Probabilistic Tool for Dose Reconstructions, and Schedule Analysis (Darois)
- T-4 Use of Instrument Simulators for Radiation Safety Training (Straccia, Torres, Morton)
- T-5 Developing a Laser Safety Program - Where does a Health Physicist Begin and... (Harvey)

Wednesday, 7/15 12:15-2:15 PM
- W-1 Alpha Spectroscopy for the Health Physicist (Pan)
- W-2 Overview of NRC Regs in 10 CFR Part 37, Physical Protection of Category 1 & Category 2... (Ragland)
- W-3 Preparing for the Joint Comission - What the RSO Should Know (Elder)
- W-4 How to Measure and Interpret Beta Exposure Rates (Voss)
- W-5 Verification and Validation of Radiological Data (Rucker)

Thursday, 7/16 12:15-2:15 PM
- Th-2 Understanding Ionizing Radiation Carcinogenesis (Raabe)
- Th-3 Randomness and Understanding of Stochastic Risk Assessments (Johnson)
- Th-4 Health Physics Challenges in Proton Therapy (Mohaupt)
- Th-5 Evaluating Radiation Skin Dose from Laboratory Contamination Events (Sturchio, Underwood)

Please check the box to confirm you have read and understand the Cancellation/Substitution Policies

Cancellation/Substitution Policy: Substitutions of meeting participants may be made at any time without penalty. All conference and tour cancellations must be in writing and must reach the HPS Office by 9 June to receive a refund. All refunds will be issued after the meeting minus a 20% processing fee. Refunds will not be issued to no-shows.