

**2008 Professional Development School  
Oakland, CA  
January 30–February 2, 2008**

The 2008 professional development school (formerly the HPS summer school), titled “Topics in Accelerator Health Physics,” will immediately follow the 2008 midyear meeting of the HPS (titled “Radiation-Generating Devices”) in Oakland, California. The school will allow students to choose from two concurrent courses of study, depending on their backgrounds.

- The first track, “Overview of Accelerator Health Physics,” will provide a broad survey of the field and is aimed specifically at students who are new to accelerator health physics, work in other fields but have an interest in accelerator health physics, or want a review of basic issues.
- The second track, “Special Topics in Accelerator Health Physics,” will expand upon the topics covered in the first track, providing detailed study for students who are currently working in the field. Students may move between tracks to design a flexible program that best fits their needs.

**Syllabus (preliminary)**

<b>TOPICS IN ACCELERATOR HEALTH PHYSICS</b>		
<b>DAY ONE – Thursday, January 31, 2008</b>		
<b>Time</b>	<b>Topic</b>	<b>Speaker</b>
07:30 – 08:30	<b>Continental breakfast</b>	
08:30 – 09:00	Welcome, introduction; handouts of materials; logistics	The Deans
<b>Track 1: Overview of Accelerator Health Physics</b>		
09:00 – 10:30	Beam transport and optics for health physicists	D. Cossairt
10:30 – 10:45	<b>Morning coffee break</b>	
10:45 – 12:00	Prompt radiation fields at accelerators	V. Vylet
12:00 – 1:30	<b>Lunch &amp; discussion</b>	
1:30 – 3:00	Induced activity	D. Cossairt
3:00 – 3:30	<b>Afternoon break</b>	
3:30 – 5:00	Radiation monitoring and measurements	L. Moritz
<b>Track 2: Special Topics in Accelerator Health Physics</b>		
09:00 – 10:30	Accelerator health physics program administration and integrated safety management	G. Zeman
10:30 – 10:45	<b>Morning coffee break</b>	
10:45 – 12:00	Accelerator health physics program administration and integrated safety management	G. Zeman
12:00 – 1:30	<b>Lunch &amp; discussion</b>	
1:30 – 3:00	Radiation damage considerations at accelerators	K. Sickafus
3:00 – 3:30	<b>Afternoon break</b>	
3:30 – 5:00	Radiation damage considerations at accelerators	K. Sickafus

6:00 – 7:30	<b>Reception for students and faculty</b>	
	<b>TOPICS IN ACCELERATOR HEALTH PHYSICS</b>	
<b>DAY TWO – Friday, February 1, 2008</b>		
07:30 – 08:30	<b>Continental breakfast</b>	
<b>Track 1: Overview of Accelerator Health Physics</b>		
08:30 – 10:00	Accelerator shielding	S. Rokni
10:00 – 10:30	<b>Morning coffee break</b>	
10:30 – 12:00	Safety systems at accelerators	J. Liu
12:00 – 1:30	<b>Lunch &amp; discussion</b>	
1:30 – 3:00	Medical applications of accelerators	G. Coutrakon
3:00 – 3:30	<b>Afternoon break</b>	
3:30 – 5:00	Challenges of personnel dosimetry at accelerators	J. McDonald
<b>Track 2: Special Topics in Accelerator Health Physics</b>		
08:30 – 10:00	Synchrotron radiation sources and free electron lasers	V. Vylet
10:00 – 10:30	<b>Morning coffee break</b>	
10:30 – 12:00	Synchrotron radiation sources and free electron lasers	V. Vylet
12:00 – 1:30	<b>Lunch &amp; discussion</b>	
1:30 – 3:00	Safety systems at accelerators	J. Liu
3:00 – 3:30	<b>Afternoon break</b>	
3:30 – 5:00	Safety systems at accelerators	J. Liu
7:00 – 10:00	<b>Night out in Chinatown</b>	
<b>DAY THREE – Saturday, February 2, 2008</b>		
07:30 – 08:30	<b>Continental breakfast</b>	
<b>Track 1: Overview of Accelerator Health Physics</b>		
08:30 – 10:00	Environmental monitoring	L. Moritz
10:00 – 10:30	<b>Morning coffee break</b>	
10:30 – 12:00	Radiation damage	K. Sickafus
12:00 – 1:30	<b>Lunch</b>	
1:30 – 3:00	Current and future challenges in accelerator health physics program management	G. Zeman
3:00 – 3:30	<b>Afternoon break</b>	
3:30 – 5:00	Induced radioactivity in environmental media	D. Cossairt
<b>Track 2: Special Topics in Accelerator Health Physics</b>		
08:30 – 10:00	The physics of particle accelerators for health physicists	D. Cossairt
10:00 – 10:30	<b>Morning Coffee Break</b>	
10:30 – 12:00	The physics of particle accelerators for health physicists	D. Cossairt
12:00 – 1:30	<b>Lunch</b>	
1:30 – 3:00	Medical applications of accelerators	G. Coutrakon
3:00 – 3:30	<b>Afternoon break</b>	

3:30 – 5:00

Medical applications of accelerators

G. Coutrakon