



# Beam Diagnostics Using Synchrotron Radiation: Theory and Practice

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US Particle Accelerator School

Sponsored by  
University of California, Santa Cruz  
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	General Imaging	Time-Resolved	Interferometry	Fluctuations	Final			
	Mon 18	Tues 19	Wed 20	Thurs 21	Fri 22			
9am	Introduction Synchrotron Radiation- Digital Cameras	Synchrotron Radiation-I Time Resolved Imaging PiMax Camera	Interferometers Theory Interferometers	LED, APD, Statistics Theory Experiments	Final Projects			
12am	----- Lunch -----							
1:00pm	Pinhole Camera	Reports	Reports	Reports	course over			
2:00pm	FZP & Imaging	Lab Primer	Lab Primer	Lab Primer				
3:00pm	Refractive Lens	Streak Camera	PiMax Camera	Simulator		Interfer- ometer	Simulator	Fluct- uations
6pm	Pinhole Camera							
7pm	----- Dinner -----							
	FZP Lens	PiMax Camera	Streak Camera	Interfer- ometer		Simulator	Fluct- uations	Simulator
10pm	SR Simulation							

Groups rotate between labs and simulations



## Course Roster

### Beam Diagnostics Using Synchrotron Radiation

<u>Name</u>	<u>Institution Name</u>	<u>Education Level</u>
Abreu, Matthew	Lawrence Berkeley National Laboratory	bap
Dellapenna, Alfred	Brookhaven National Laboratory	bse
Jing, Yichao	Indiana University	gs
Osborne, Kenneth	Lawrence Berkeley National Laboratory	bap
Padrazo Jr., Danny	Brookhaven National Laboratory	bsee
Sayed, Hisham	Old Dominion University	gs
Swiggers, Michele	SLAC	ms
Tennant, Chris	Jefferson Lab	phd
van Gelder, Ariana	City College of New York	ug
Xu, Huijuan	Brookhaven National Laboratory	ms

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## Course Grading Policy

50% effort & creativity

25% lab work (group reports)

25% final project (group reports ok)

no formal homework sets - lab reports & final

2 University of California Credits

steep grading curve

- relax and enjoy yourself



## Safety and your comfort zone





'Why,' Said the Dodo  
'The best way to explain it is to do it'

- Lewis Carroll

