

Beam Stability at Light Sources
USPAS - June 16 - 20, 2003

Instructors (in alphabetical order)

John Carwardine

- Presently Group Leader, Power Supply Group, Accelerator Systems Division, Advanced Photon Source
- Co-inventor of award-winning APS real-time orbit feedback system
- Electrical engineering background

Glenn Decker

- Presently Group Leader, Operations Analysis Group, APS Operations Division
- Senior Scientist, APS Operations Division
- Experimental Accelerator Physics background (Cornell, 1986)
- Former X-ray ring manager, NSLS, Former APS Diagnostics Group Leader (twice), Former Associate Division Director of APS Accelerator Operation (twice), Former Storage Ring Manager, APS
- Virtually no formal instruction in electronics / electrical engineering

Bob Hettel

- Stanford Synchrotron Radiation Laboratory (SSRL) Assistant Division Director of Accelerator Systems
- Presently Deputy Director, SPEAR-3, SSRL, SLAC
- Inventor of earliest orbit correction servos at SLAC
- Physics + Electrical Engineering background

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Instructors (cont'd)

Jim Sebek (guest speaker)

Presently Physicist, SSRL

Background in a broad range of accelerator technologies

Nick Sereno

- Presently Physicist, Operations Analysis Group, APS Operations Division
- APS booster + particle accumulator ring manager
- Background Experimental Accelerator Physics, CEBAF, 1993

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Class format

Morning, Afternoon lectures

Problem sets assigned Mon, Tue, Wed, Thu, due the following day

Computer lab - reserved 12:30 PM - 2 PM, Tue, Wed, Thu

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Topics to be covered at some level:

Accelerator Physics, minimalist approach

Accelerator Physics special topic- multibunch instabilities

Electrical Engineering - analog

Electrical Engineering - digital

Computer science - digital signal processing

Mathematics

RF Engineering

Mechanical Engineering

Geophysics

History of Science