

Beam Dynamics Experiments on the University of Maryland Electron Ring

Instructors: Rami Kishek, Santiago Bernal, Ralph Fiorito, and Patrick O'Shea

Staff: Brian Beaudoin, Don Feldman, Irving Haber, Diktys Stratakis, David Sutter, J. Charles T. Thangaraj, and Chao Wu

June 16-27, 2008, Energy Research Building, University of Maryland Campus

	9:30 AM - 10:40 AM Lecture 1		10:50 AM - NOON Lecture 2		1 PM - 4 PM			
					Station 1 <i>UMER</i>	Station 2 <i>LSE</i>	Station 3 <i>Hughes</i>	Offline
Week 1								
Mon 16	Course Organization + Intro to UMER Beam Dynamics	Kishek	Diagnostics + Source Physics	Bernal, Haber	Safety; Diagnostics; Sources			<i>Alternate: Breadboard</i>
Tue 17	Non-intercepting diagnostics	Sutter	Imaging and Image Processing	Kishek	Imaging; Tomography	Imaging; Imaging		Rotating Coil; Rotating Coil
Wed 18	Phase-Space Mapping / Tomography	Stratakis	<i>Tomography Morning Lab / on UMER</i>		Longitudinal Monitors (IM / Laser)			Solenoid
Thu 19	Magnets and measurements	Bernal	<i>Tomography Morning Lab / on UMER</i>		Longitudinal Monitors (IM / Laser)			Solenoid
Fri 20	Optical Transition Radiation	Fiorito	OTR demo (RC1)		Quad-scan (IC2)	<i>End early, by 2 PM</i>		Analysis/Writing
Week 2								
Mon 23	Longitudinal 1: Perturbation generation and Waves	O'Shea	Longitudinal 2: Beam End Erosion and Induction Cell	Beaudoin	Longitudinal Monitors (IM / Laser)			Solenoid
Tue 24	Tune Measurement	Sutter	<i>Morning Lab</i>		Ring Dynamics	Energy Analyzer	Sources	BPM Calibration / Report Writing
Wed 25	Energy Analyzer Measurements	Kishek	<i>Morning Lab</i>		Ring Dynamics	Energy Analyzer		BPM Calibration / Report Writing
Thu 26	Emittance Measurement (Quad-scan/Pepper-pot/Slit)	Bernal	<i>Morning Lab</i>		Ring Dynamics	Energy Analyzer		BPM Calibration / Report Writing
Fri 27	<i>Annapolis: Student Presentations</i>							

