

ADVANCED ACCELERATOR PHYSICS COURSE
Darmstadt, Germany, 28 September – 9 October, 2009

Time	Monday 28 September	Tuesday 29 September	Wednesday 30 September	Thursday 1 October	Friday 2 October	Saturday 3 October	Sunday 4 October	Monday 5 October	Tuesday 6 October	Wednesday 7 October	Thursday 8 October	Friday 9 October	
08:30	Opening Talk	Recap. Transverse Dynamics II	Linear Imperfections & Coupling	Non-Linear Imperfections I	Longitudinal Instabilities	Transverse Instabilities	E X C U R S I O N E	Instabilities in Linacs	Landau Damping I	Landau Damping II	Beam-Beam Effects	Departure after breakfast	
09:30	K. Langanke	B. Holzer	O. Bruning	O. Bruning	E. Metral	E. Metral		M. Ferrario	A. Hofmann	A. Hofmann	W. Herr		
09:30	Recap. Transverse Dynamics I	Introduction to Beam Diagnostics	Linear Accelerators I	Linear Colliders	Space Charge	Closed Orbit Feedback		Low Emittance Machines III	Insertion Devices	Concept of Luminosity	High Brilliance Beam Diagnostics	A. Cianchi	
10:30	B. Holzer	H. Schmickler	M. Vretenar	F. Tecker	M. Ferrario	M. Boege		A. Wolski	P. Elleaume	W. Herr			
	C O F F E E								C O F F E E				
11:00	Recap. Longitudinal Dynamics I	RF Cavity Design	RFQ	Non-Linear Imperfections II	Sources of Emittance Growth (Hadrons)	Low Emittance Machines II		Intro to E.M. Simulations	FELs	Beam Cooling	Muon Colliders & Neutrino Factories		
12:00	J. Le Duff	E. Jensen	M. Vretenar	O. Bruning	M. Giovanozzi	A. Wolski		T. Weiland	S. Reiche	M. Steck	K. Long		
12:00	Introduction to Beam Instrumentation	Insertions	GS1 Longitudinal Dynamics	T1 Longitudinal Dynamics	High Field Magnets	T2 Transverse Dynamics		GS3 Low Emittance Machines	T3 Low Emittance Machines	Machine Protection & Collimation	Questions and Answers		
13:00	R. Jones	B. Holzer			L. Rossi					R. Schmidt			
	L U N C H								L U N C H				
14:30	Lattice Cells	C1	C1	F	Low Emittance Machines I	C1		C1	C1	V I S I T	C1		
15:30	B. Holzer	C2	C2	R	A. Wolski	C2		C2	C2		C2		
15:30	RF Basic Concepts	C3	C3	E	Intro. to Feedback Systems	C3	C3	C3	C3				
16:30	F. Caspers			E	W. Hoefle								
	T E A				T E A			T E A					
17:00	Recap. Longitudinal Dynamics II	C1	C1	E	GS2 Transverse Dynamics	Poster Session	C1	Seminar CancerTherapy with Ion Accelerators	G S I		Seminar 3DEM Simulations		
18:00	J. Le Duff	C2	C2				C2	T. Haberer		M. Balk			
19:30	Welcome Drink	C3	C3				C3						
20:00	D I N N E R												
									Special Dinner		DINNER		

Course 1 = "RF Measurements Techniques"

Course 2 = "Beam Instrumentation and Diagnostics"

Course 3 = "Optics Design and Corrections"