Program for the 2025 CAS - Introduction to Accelerator Physics

Time	Sun 21/09	Mon 22/09	Tue 23/09	Wed 24/09	Thu 25/09	Fri 26/09	Sat 27/09	Sun 28/09	Mon 29/09	Tue 30/09	Wed 01/10	Thu 02/10	Fri 03/10	Sat 04/10
08:30		Opening / local presentation	Transverse Linear Beam Dynamics II	Transverse Linear Beam Dynamics III	Free study time	Linear Imperfections - corrections	Electron Beam Dynamics II		Cyclotrons	Beam Diagnostics I	Free study time	Time and Frequency domain signals I	Synchrotron light circular machines & FELs I	
09:30														
09:35		Electromagnetic Theory	Warm Magnets	Linear Accelerators I		Longitudinal BD in Circular Machines II	Collective Effects III		RF systems I	Introduction to Non-Linear longitudinal Beam Dymanics		A first taste of Non-Linear Beam Dynamics I	Synchrotron light circular machines & FELs II	
10:35		Coffee				Coffee			Coffee			Coffee		
11:05		History of particle acceleration	Sources	Transverse Linear Beam Dynamics IV		Collective Effects I	Injection and Extraction		Sustainability for Accelerators	Beam Diagnostics II		Time and Frequency domain signals II	Particle motion in Hamiltonian Formalism II	
12:05														
12:10		Kinematics of Particle Beams - Relativity	Secondary beams and targets	Linear Accelerators II	Lunch	Electron Beam Dynamics I	Collective Effects IV		RF systems II	Advanced accelerator concepts I	Lunch	A first taste of Non-Linear Beam Dynamics II	Putting it all together	
13:10	Arrival day and registration	Lunch				Lunch		Excursion	Lunch			Lunch		Departure day
13:45					Transverse Linear Beam Dynamics VI						Computational tools I			
14:45														
14:50		Transverse Linear Beam Dynamics I	Superconducting Magnets	Transverse Linear Beam Dynamics V	Linear Imperfections I	Collective Effects II	Vacuum		Hands-ON calculations (longitudinal) - Intro	Hands-ON calculations (longitudinal) - III	Advanced accelerator concepts II	Particle motion in Hamiltonian Formalism I	Designing a synchrotron - a real life example	
15:50		Coffee							Coffee					
16:20		Accelerator Applications	Hands-ON Lattice calulations I	Hands-ON Lattice calulations III	Longitudinal BD in Circular Machines I	Hands-ON Lattice calulations V	Discussion session		Hands-ON calculations (longitudinal) - I	Hands-ON calculations (longitudinal) - IV	Computational tools II	Discussion session	Closing	
17:20														
17:25		1 slide 1 minute	Hands-ON Lattice calulations II	Hands-ON Lattice calulations IV	Linear Imperfections II	Hands-ON Lattice calulations VI	Study time all		Hands-ON calculations (longitudinal) - II	Hands-ON calculations (longitudinal) - V	Colliders and luminosity	Study time all		
18:45		Welcome reception	Poster session		Discussion session	** Seminar **								
20:15		Dinner at Hotel											Banquet	
21:00							Cinema event						Dinner	