

Programme for CAS course “Numerical Methods for Analysis, Design and Modelling of Particle Accelerators”

11-23 November 2018, Thessaloniki, Greece

	Wed, 21.2.2018	Thu, 22.2.2018	Fri, 23.2.2018	Sat, 24.2.2018	Sun, 25.2.2018	Mon, 26.2.2018	Tue, 27.2.2018	Wed, 28.2.2018	Thu, 1.3.2018	Fri, 2.3.2018	Sat, 3.3.2018	Sun, 4.3.2018	Mon, 5.3.2018	Tue, 6.3.2018			
Arrival day and registration	08:30	Opening Seminar	Detectors for high energy colliders/Machine detector interface I L.Linssen	Recap of long. BD F.Tecker	Collider Diagnostics / Measurement of critical beam parameters I J.Wenniger	Beam-Beam Effects/Beamstrahlung I W.Herr	Instabilities in high energy colliders and their mitigation I O.Boine-Frankenheim	Superconducting RF systems I E.Jensen	Normalconducting & permanent magnets T. Zickler	Low Level RF challenges/timing systems I A. Gallo	Interaction of particles with matter N. Mokhov	Normal conducting high gradient RF systems II W.Wuensch					
	09:20	Discussion															
	09:30	High energy physics at colliders M. Mangano	Recap of transverse BD I H.Schmickler	Large colliders critical technologies M.Jimenez	Circular Hadron Collider beam dynamics I M.Syphers	Circular Lepton Collider beam dynamics/damping rings I K. Oide	Circular Lepton Collider beam dynamics/damping rings II K. Oide	Positron production M. Kuriki	Superconducting RF systems III E.Jensen	Low Level RF challenges/timing systems II A. Gallo	Normal conducting high gradient RF systems I W.Wuensch	Kickers & Septa M.Paraliev					
	10:30	Coffee															
	11:00	Luminosity goals, critical parameters B. Muratori	Detectors for high energy colliders/Machine detector interface II L.Linssen	Single Shot high brilliance beam transport D. Schulte	Collider Diagnostics / Measurement of critical beam parameters II J.Wenniger	Beam-Beam Effects/Beamstrahlung II W.Herr	Instabilities in high energy colliders and their mitigation II O.Boine-Frankenheim	Superconducting RF systems II E.Jensen	Magnet vibration and feedbacks A.Seryi	RF power systems, CLIC drive beam S. Doebert	Machine protection concepts N. Mokhov	Alignment&metrology/ requirements and realization D. Missiaen					
	11:50	Discussion															
	12:00	Introduction to a Muon Collider and Gamma Collider W.Chou	Recap of transverse BD II H.Schmickler	Discussion Session I B. Holzer	Circular Hadron Collider beam dynamics II M.Syphers	Injection and extraction M.Aiba	Discussion Session II B. Holzer	Large colliders civil engineering and siting J.Osborne	Lessons learnt from SLC F. Zimmermann	Discussion III B. Holzer	Final Focus layouts and stability considerations A. Seryi	High Energy Ion Colliders J. Jowett					
	13:00	Lunch															
	14:30	Linear Collider studies overview S.Stapnes	Linear Collider Beam dynamics I D.Schulte	Case Studies Introduction WH/BH/DS	Free	Case Studies II WH/BH/DS	Case Studies IV WH/BH/DS	Superconducting material/cables C. Senatore	Case Studies VI WH/BH/DS	Free	Case Studies VIII WH/BH/DS	Reliability Engineering/Availability of a large collider complex M.Zerlauth					
	15:30	Large circular colliders overview(including h-e option) M.Benedikt	Emittance Preservation in Hadron Machines H. Schmickler	Case Studies I WH/BH/DS		Case Studies III WH/BH/DS	Case Studies V WH/BH/DS	Superconducting magnets /Low temperature Superconductors I L. Bottura	Case Studies VII WH/BH/DS		Case Studies IX WH/BH/DS	Case Studies Presentations I WH/BH/DS					
	16:30	Coffee															
	17:00	Lessons learnt from LEP/LHC M.Lamont	Linear Collider Beam dynamics II D.Schulte	Polarized electron beams/energy calibration J.Wenniger		Seminar I local	Vacuum Challenges R.Kersevan	Superconducting magnets /High temperature Superconductors II L. Bottura	Advanced future Collider Concepts P. Mugli		Collimators & Dumps & Masks M.Seidel	Case Studies Presentations II WH/BH/DS					
	18:00	Reception 18:15													Closing		
		Podium discussion F. Gianotti / F. Bordry															
	19:30	late dinner (20h)	dinner										Dinner	Gala Dinner	Dinner		

Departure day