

HELIOS Lund Retreat 2022 Programme

	Monday 10/10	Tuesday 11/10	Wednesday 12/10	Thursday 13/10	Friday 14/10
8:30-9:00	Welcome + Breakfast	Breakfast	Breakfast	Breakfast	Breakfast
45 min	Inspiration: Past and future of electronics. Francesc Perez (IMB CNM)	(Nano Lund or MAX IV + ESS tour)	Three inspiration lectures: From Boolean logic/truth table, Transistors, to Digital electronic, Integrated Circuit, Microprocessors and FPGA Wahida Gasti (ESA)	SK: Science communication Dan Csontos - Elevate Scientific	Inspiration: distributed control systems EPICS Bastian Loeher (GSI)
45 min	B: Fundamentals of electronics: electricity AC/DC, Power, Resistance/Heat, Capacitance/Inductance Christian Brackmann (LU)				Inspiration: distributed control systems Tango Vincent Hardion (MAXIV)
10:30-11:00	Break		Break	Break	Break
45 min	B: Basic electronic circuits: RL, RC and RLC circuits Erik Månson (DESY) - positive response	(Nano Lund or MAX IV + ESS tour)	A: Laboratory work on signal processing Luis Sarmiento Pico (LU)	Inspiration: Development of particle physics detectors - a world-wide collaboration. Hannah Herde (LU)	Project on Raspberry Pi D. Winge (LU)
45 min	A: Solid state devices: p-n junction, Transistors, photoelectric devices Dan Hessman (LU)			Inspiration: Detectors for Photon science and particle physics. Heinz Graafsma	
12:30-13:30	Lunch	Lunch	Lunch	Lunch	Lunch
45 min	SK: Science communication Dan Csontos - Elevate Scientific	Comsol simulation p-n junction and transistors D. Winge (LU)	SK: Science communication Dan Csontos - Elevate Scientific	Spice simulation - electronic circuit D. Winge	Project on Raspberry Pi D. Winge (LU)
45 min					

15:00-15:30	Break	Break	Break	Break	Break
45 min	SK: Science communication Dan Csontos - Elevate Scientific	Comsol simulation p-n junction and transistors D. Winge (LU)	SK: Science communication Dan Csontos - Elevate Scientific	Spice simulation - electronic circuit D. Winge	SK : Speakers from Industry TBA
45 min					Concluding remarks
17:00	End of Day	End of Day	End of Day	End of Day	End of Day
					Social Dinner