

COURSE 1

WEEK 1

		17 Jan.	18 Jan.	19 Jan.	20 Jan.	21 Jan.
		Monday	Tuesday	Wednesday	Thursday	Friday
PRE-REQUISITE VIDEOS	Videos 1	Experimental Particle Physics Marco Delmastro	Experimental Particle Physics Marco Delmastro	Experimental Particle Physics Marco Delmastro	Experimental Particle Physics Marco Delmastro	Experimental Astroparticle Physics François Montanet
	Videos 2	Experimental Particle Physics Marco Delmastro	Experimental Cosmology Juan Macias-Perez	Experimental Cosmology Juan Macias-Perez	Experimental Astroparticle Physics François Montanet	Experimental Astroparticle Physics François Montanet
	Videos 3	Experimental Cosmology Juan Macias-Perez				

13:30 - 14:00	Q&A LIVE	LIVE Presentation ESIPAP	Experimental Particle Physics Marco Delmastro	Experimental Cosmology Juan Macias-Perez	Experimental Astroparticle Physics François Montanet	Experimental Particle Physics Marco Delmastro
14:00 - 15:15	Tutorial 1 LIVE	Students Presentation & Ice Breaking Activity (with coach)	Experimental Particle Physics Marco Delmastro	Experimental Cosmology Juan Macias-Perez	Experimental Particle Physics Marco Delmastro	Experimental Astroparticle Physics François Montanet
15:30 - 16:45	Tutorial 2 LIVE	Inaugural lesson ?		Experimental Particle Physics Marco Delmastro	Experimental Particle Physics Marco Delmastro	Experimental Particle Physics Marco Delmastro

COURSE 1

WEEK 2

		24 Jan.	25 Jan.	26 Jan.	27 Jan.	28 Jan.
		Monday	Tuesday	Wednesday	Thursday	Friday
PRE-REQUISITE VIDEOS	Videos 1	Interaction of Particles with Matter Lucia Di Ciaccio	Interaction of Particles with Matter Lucia Di Ciaccio	Tracking Jérôme Baudot	Tracking Jérôme Baudot	LIVE 9:00 - 12:00 Lab Training Session 1: Characterization of Silicon Pixel Sensors for HEP Katharina Dort
	Videos 2	Radioprotection Helmut Vincke	Radioprotection Helmut Vincke	Tracking Jérôme Baudot	Machine Learning Yann Coadou	
	Videos 3	Labs Training Session 1 presentation	Labs Training Session 2 presentation	Machine Learning Yann Coadou	Machine Learning Yann Coadou	

13:30 - 14:00	Q&A LIVE	Interaction of Particles with Matter Lucia Di Ciaccio	Radioprotection Helmut Vincke	Tracking Jérôme Baudot	Machine Learning Yann Coadou	LIVE 13:30 - 16:30 Lab Training Session 2: Solid State detector Anja Himmerlich
14:00 - 15:15	Tutorial 1 LIVE	Interaction of Particles with Matter Lucia Di Ciaccio	Interaction of Particles with Matter Lucia Di Ciaccio	14:15 - 15:45 EXAMINATION Experimental Particle Physics Marco Delmastro	Tracking Jérôme Baudot	
15:30 - 16:45	Tutorial 2 LIVE					

COURSE 1

WEEK 3

		31 Jan.	1 Feb.	2 Feb.	3 Feb.	4 Feb.
		Monday	Tuesday	Wednesday	Thursday	Friday
PRE-REQUISITE VIDEOS	Videos 1	TMVA Lab Karolos Potamianos	Calorimetry Jean-Baptiste Sauvan	Muon Detection Laurent Chevalier	Imaging and Cherenkov Detectors François Montanet	LIVE 9:00 - 12:00 Lab Training Session 3: Resistive Plate Chambers Roberto Guida & Beatrice Mandelli
	Videos 2	Calorimetry Jean-Baptiste Sauvan	Calorimetry Jean-Baptiste Sauvan	Muon Detection Laurent Chevalier	Imaging and Cherenkov Detectors François Montanet	
	Videos 3	Calorimetry Jean-Baptiste Sauvan	Muon Detection Laurent Chevalier	Imaging and Cherenkov Detectors François Montanet	Particle Identification Guillaume Unal	

13:30 - 14:00	Q&A LIVE	TMVA Lab Karolos Potamianos	Calorimetry Jean-Baptiste Sauvan	Muon Detection Laurent Chevalier	Imaging and Cherenkov Detectors François Montanet	LIVE 13:30 - 16:30 Lab Training Session 4: Microscopic modelling of gaseous detectors Josh Renner & Rob Veenhof
14:00 - 15:15	Tutorial 1 LIVE	TMVA Lab Karolos Potamianos	14:15 - 15:45 EXAMINATION Interaction of Particles with Matter Lucia Di Ciaccio	Muon Detection Laurent Chevalier	Particle Identification Q&A + Tutorial Guillaume Unal	
15:30 - 16:45	Tutorial 2 LIVE	TMVA Lab Karolos Potamianos		Muon Detection Laurent Chevalier	Lab Training Session 3 & 4: Labs presentation (video)	

COURSE 1

WEEK 4 - TUTORIALS LIVE COMPUTING WEEK

		7 Feb. Monday	8 Feb. Tuesday	9 Feb. Wednesday	10 Feb. Thursday	11 Feb. Friday
LIVE WEEK	9:00 - 12:00 CET	Detector Simulation G4 Anna Zaborowska	Detector Simulation G4 Anna Zaborowska	Computing sessions Eric Chabert & Eric Conte	Computing sessions Eric Chabert & Eric Conte	EXAMINATION DAY 9:00 - 10:30 Calorimerty Jean-Baptiste Sauvan 11:00 - 12:30 Tracking Jérôme Baudot

LIVE WEEK	13:30 - 16:45 CET	C++ Programming Eric Chabert & Eric Conte	C++ Programming Eric Chabert & Eric Conte	C++ Programming Eric Chabert & Eric Conte	C++ Programming Eric Chabert & Eric Conte	14:00 - 15:00 Muon Laurent Chevalier 15:30 - 17:00 Multi field
-----------	----------------------	--	--	--	--	--

COURSE 2

WEEK 5

		14 Feb.	15 Feb.	16 Feb.	17 Feb.	18 Feb.
		Monday	Tuesday	Wednesday	Thursday	Friday
PRE-REQUISITE VIDEOS	Videos 1	Gaseous detectors Jean-Marie Brom	Signal Processing and Electronics Daniel Dzahini	Semi conductor detectors Mengqing Wu	Signal Processing and Electronics Daniel Dzahini	Scintillation detectors Etiennette Auffray
	Videos 2	Noble liquid detectors Johann Collot	Signal Processing and Electronics Daniel Dzahini	Signal Processing and Electronics Daniel Dzahini	Cherenkov and transition radiation detectors Christian Joram	Gaseous Neutron detectors from slow neutron facilities B. Guerard
	Videos 3	Introduction to Signal Processing and Electronics E. Delagnes	Low Temperature detectors Martino Calvo	Signal Processing and Electronics Daniel Dzahini	Gravitational wave detection Romain Gouaty	

13:30 - 14:00	Q&A LIVE	Presentation ESIPAP	Gaseous detectors Jean-Marie Brom	Signal Processing and Electronics Daniel Dzahini	Signal Processing and Electronics Daniel Dzahini	Scintillation detectors Etiennette Auffray
14:00 - 15:15	Tutorial 1 LIVE	Students Presentation & Ice Breaking Activity (with coach)	14:00 - 14:30 Q&A Noble liquid detectors Johann Collot	Signal Processing and Electronics Daniel Dzahini	14:00 - 14:30 Q&A Cherenkov and transition radiation detectors Christian Joram	14:00 - 14:30 Q&A Gaseous Neutron detectors from slow neutron facilities B. Guerard
15:30 - 16:45	Tutorial 2 LIVE	Inaugural lesson Detectors : General aspects Norbert Wermes	15:00 - 16:45 Signal Processing and Electronics Daniel Dzahini		14:30 - 15:00 Q&A Gravitational wave detection Romain Gouaty	15:00 - 16:15 Detector Tutorials Johann Collot

COURSE 2

WEEK 6

		21 Feb.	22 Feb.	23 Feb.	24 Feb.	25 Feb.
		Monday	Tuesday	Wednesday	Thursday	Friday
PRE-REQUISITE VIDEOS	Videos 1	Trigger Francesca Pastore	LIVE 9:00 - 12:00 C++ Programming Sébastien Ponce	LIVE 9:00 - 12:00 C++ Programming Sébastien Ponce	LIVE 9:00 - 12:00 C++ Programming Sébastien Ponce	
	Videos 2	Trigger and Data Acquisiton Software Enrico Pasqualucci				
	Videos 3	FPGA Hannes Sakulin				

13:30 - 14:00	Q&A LIVE	13:30 - 14:00 Q&A Trigger Francesca Pastore	LIVE 13:30 - 16:45 Python Programming Karolos Potamianos	LIVE 13:30 - 16:45 Python Programming Karolos Potamianos	LIVE 13:30 - 16:45 Data Handling Alberto Pace	LIVE 13:30 - 16:45 Data Handling Alberto Pace
14:00 - 15:15	Tutorial 1 LIVE	14:00 - 14:30 Q&A Trigger and Data Acquisition software Enrico Pasqualucci				
15:30 - 16:45	Tutorial 2 LIVE	14:30 - 15:00 Q&A FPGA Hannes Sakulin				
		15:00 - 16:00 Applied design project preparatory meeting Johann Collot				

COURSE 2

WEEK 7

		28 Feb.	1 March	2 March	3 March	4 March
		Monday	Tuesday	Wednesday	Thursday	Friday
PRE-REQUISITE VIDEOS	Videos 1	Magnets for Particle Detectors Herman Ten Kate	LIVE 9:00 - 12:00 Lab Training Session: ??	Additive Printing Marc Krauth	LIVE 9:00 - 12:00 Lab Training Session: Alpha particle pulse measurement in diamond detectors Mahfoud Yamouni	The Ariane Odyssey, from Ariane 1 to Ariane 6 Isabelle Rongier ASL & Jan Droz CNES
	Videos 2	Magnets for Particle Detectors Herman Ten Kate		Additive Printing Marc Krauth		
	Videos 3	Magnets for Particle Detectors Herman Ten Kate				

13:30 - 14:00	Q&A LIVE	Magnets for Particle Detectors Herman Ten Kate	LIVE 13:30 - 16:45 Ahead Lab : detection of extensive air cosmic showers François Montanet	LIVE 13:30 - 16:45 Project Management Thijs Wijnands	LIVE 13:30 - 16:45 Project Management Thijs Wijnands	
14:00 - 15:15	Tutorial 1 LIVE	14:00 - 15:30 EXAMINATION DT				14:00 - 15:30 EXAMINATION MPD
15:30 - 16:45	Tutorial 2 LIVE	16:00 - 17:30 EXAMINATION SPE				16:00 - 17:30 EXAMINATION Multi Field
				17:00 - 17:30 Applied design project preparatory meeting Johann Collot		

COURSE 2

WEEK 8

		7 March	8 March	9 March	10 March	11 March
		Monday	Tuesday	Wednesday	Thursday	Friday
PRE-REQUISITE VIDEOS	Videos 1 Radiotherapy	Medical Radioisotopes Ulli Koester	Medical physics challenges in modern radiotherapy Jean-François Adam	Beam monitoring in high-intensity radiotherapy treatments beams Yannick Arnoud	Quality Assurance for small beam radiotherapy and HDR brachytherapy Patrick Pittet	How to boost radiation therapies using nanoparticless Erika Porcel
	Videos 2 Medical Imaging	Medical Physics challenges in diagnostic imaging Jean-François Adam	Photon (x-ray) Imaging Christian Morel	Advances in nuclear medicine Jean-Noel Badel	X-ray phase contrast imaging in medicine Emmanuel Brun	Ultrasound: more than just a non ionizing imaging modality Hervé Liebgott

13:30 - 14:00	Q&A LIVE	Medical Radioisotopes Ulli Koester	Medical Q&A Christian Morel & Jean-François Adam	Medical Q&A Yannick Arnoud & Jean-Noel Badel	Medical Q&A Patrick Pittet & Emmanuel Brun	Medical Q&A Erika Porcel & Hervé Liebgott
14:00 - 15:15	Tutorial 1 LIVE	Tutored Applied Project design	Tutored Applied Project design	Tutored Applied Project design	Tutored Applied Project design	PROJECT PRESENTATION
15:30 - 16:45	Tutorial 2 LIVE					