ESIPAP TIMETABLE 2023 WEEK 1

Schedule	Monday Jan 16	Tuesday Jan 17	Wednesday Jan 18	Thursday Jan 19	Friday Jan 20
9h - 10h15		**Experimental Subatomic Physics Lecture 1** Marco Delmastro *LAPP Annecy*	**Experimental Subatomic Physics Lecture 3** Marco Delmastro *LAPP Annecy*	**Experimental Subatomic Physics Lecture 5** Marco Delmastro *LAPP Annecy*	**Experimental Subatomic Physics Tutorial 4** Marco Delmastro *LAPP Annecy*
10h15 - 10h45		**Break**	**Break**	**Break**	**Break**
10h45 - 12h		**Experimental Subatomic Physics Lecture 2** Marco Delmastro *LAPP Annecy*	**Experimental Subatomic Physics Lecture 4** Marco Delmastro *LAPP Annecy*	**Experimental Subatomic Physics Tutorial 3** Marco Delmastro *LAPP Annecy*	**Experimental Subatomic Physics Tutorial 5** Marco Delmastro *LAPP Annecy*
12h - 13h	**WELCOME LUNCH (provided by ESI)**	**LUNCH**	**LUNCH**	**LUNCH**	**LUNCH**
13h - 14h15	**OFFICIAL OPENING : Presentation ESIPAP & students** J. Collot, B. Holland, M. Castelle *ESIPAP Director*	**Experimental Subatomic Physics Tutorial 1** Marco Delmastro *LAPP Annecy*	**Experimental Subatomic Physics Tutorial 2** Marco Delmastro *LAPP Annecy*	**Experimental Astroparticle Physics Lecture 1**	**Experimental Astroparticle Physics Lecture 3**
14h15 - 14h35	**Break**	**Break**	**Break**	**Break**	**Break**
14h35 - 15h50	**Inauguration 10th edition** **3 x 20' ECR** **+ 30' Senior**	**Experimental Cosmology Lecture 1** Juan Macias Perez *LPSC Grenoble*	**Experimental Cosmology Lecture 3** Juan Macias Perez *LPSC Grenoble*	**Experimental Astroparticle Physics Lecture 2**	**Experimental Astroparticle Physics Tutorial**
15h50 - 16h10		**Break**	**Break**	**PRIVATE STUDIES**	**PRIVATE STUDIES**
16h10 - 17h30	**CHECK-IN AT THE RESIDENCE** **&** **SHOPPING FOR GROCERIES**	**Experimental Cosmology Lecture 2** Juan Macias Perez *LPSC Grenoble*	**Experimental Cosmology Tutorial** Juan Macias Perez *LPSC Grenoble*		

ESIPAP TIMETABLE 2023 WEEK 2

Schedule	Monday Jan 23	Tuesday Jan 24	Wednesday Jan 25	Thursday Jan 26	Friday Jan 27
8h45 - 9h	Evaluation of Week 1			PRIVATE STUDIES	*Bus leaves at 7:00 from ESIPAP* (Lunch at CERN) Lab Training Sessions at CERN *Return scheduled at 18:00*
9h - 10h15	**Interaction of Particles with Matter** **Lecture 1** Lucia di Ciaccio *LAPP Annecy*	**Interaction of Particles with Matter** **Lecture 3** Lucia di Ciaccio *LAPP Annecy*	**Tracking** **Lecture 1** Jérôme Baudot *IPHC Strasbourg*		
10h15 - 10h45	Break	Break	Break		
10h45 - 12h	**Interaction of Particles with Matter** **Lecture 2** Lucia di Ciaccio *LAPP Annecy*	**Interaction of Particles with Matter** **Tutorial** Lucia di Ciaccio *LAPP Annecy*	**Tracking** **Lecture 2** Jérôme Baudot *IPHC Strasbourg*	10:30 - 12:00 Exam EAP	
12h - 13h	LUNCH	LUNCH (provided by ESI)	LUNCH	LUNCH & PRIVATE STUDIES	
13h - 14h15	**Radioprotection** **Lecture 1** Helmut Vincke *CERN*	**Imaging and Cherenkov Detectors :** **lecture 1**	**Tracking** **Lecture 3** Jérôme Baudot *IPHC Strasbourg*	13:30 - 15:00 Exam EC	
14h15 - 14h35	Break	Break	Break		
14h35 - 15h50	**Radioprotection** **Lecture 2** Helmut Vincke *CERN*	**Imaging and Cherenkov Detectors :** **lecture 2**	**Tracking** **Tutorial** Jérôme Baudot *IPHC Strasbourg*	PRIVATE STUDIES	
15h50 - 16h10	Break	Break	PRIVATE STUDIES		
16h10 - 17h30	**Radioprotection** **Tutorial / Q&A** Helmut Vincke *CERN*	**Imaging and Cherenkov Detectors :** **lecture 3**		16:00 - 17:30 Exam ESP	

ESIPAP TIMETABLE 2023 WEEK 3

Schedule	Monday Jan 30	Tuesday Jan 31	Wednesday Feb 1	Thursday Feb 2	Friday Feb 3
8h45 - 9h	Evaluation of Week 2				
9h - 10h15	**Calorimetry** **Lecture 1** Jean-Baptiste Sauvan *CNRS*	**Calorimetry** **Lecture 3** Jean-Baptiste Sauvan *CNRS*	**Muon Detection** **Lecture 1** Laurent Chevalier *CEA-IRFU Saclay*	**Muon Detection** **Lecture 3** Laurent Chevalier *CEA-IRFU Saclay*	
10h15 - 10h45	Break	Break	Break	Break	
10h45 - 12h	**Calorimetry** **Lecture 2** Jean-Baptiste Sauvan *CNRS*	**Calorimetry** **Tutorial** Jean-Baptiste Sauvan *CNRS*	**Muon Detection** **Lecture 2** Laurent Chevalier *CEA-IRFU Saclay*	**Muon Detection** **Tutorial** Laurent Chevalier *CEA-IRFU Saclay*	*Bus leaves at 7:00 from ESIPAP*
12h - 13h	LUNCH	LUNCH (provided by ESI)	LUNCH	LUNCH	(Lunch at CERN)
13h - 14h15	**Machine learning** **Lecture 1** Yann Coadou *CPPM Marseille*	**Machine learning** **Lecture 2** Yann Coadou *CPPM Marseille*	**TMVA Lab** Karolos Potamianos *University of Oxford*	PRIVATE STUDIES	**Lab Training Sessions** **at CERN**
14h15 - 14h35	Break	Break	Break		
14h35 - 15h50	**Machine learning** **Tutorial 1** Yann Coadou *CPPM Marseille*	**Machine learning** **Tutorial 2** Yann Coadou *CPPM Marseille*	**TMVA Lab** Karolos Potamianos *University of Oxford*		*Return scheduled at 18:00*
15h50 - 16h10	Break	Break	PRIVATE STUDIES		
16h10 - 17h30	**Particle Identification** Guillaume Unal *CERN*	**Particle Identification** Guillaume Unal *CERN*		**16:00 - 17:30** **Exam IPM**	

ESIPAP TIMETABLE 2023 WEEK 4

Schedule	Monday Feb 6	Tuesday Feb 7	Wednesday Feb 8	Thursday Feb 9	Friday Feb 10
8h45 - 9h	Evaluation of Week 3				
9h - 10h15	**Detector Simulation** Anna Zaborowska *CERN*	**Detector Simulation** Anna Zaborowska *CERN*	**Computing sessions** Eric Chabert *IPHC Strasbourg* Eric Conte *IUT de Colmar*	**Computing sessions** Eric Chabert *IPHC Strasbourg* Eric Conte *IUT de Colmar*	**9:00 - 10:30** **Exam Calorimetry**
10h15 - 10h45	Break	Break			Break
10h45 - 12h	**Detector Simulation** Anna Zaborowska *CERN*	**Detector Simulation** Anna Zaborowska *CERN*			**11:30 - 13:00** **Exam Tracking**
12h - 13h	LUNCH	LUNCH	LUNCH	LUNCH	LUNCH
13h - 14h30	**C++ Programming** Eric Chabert *IPHC Strasbourg*	**C++ Programming** Eric Chabert *IPHC Strasbourg*	**Computing sessions** Eric Chabert *IPHC Strasbourg* Eric Conte *IUT de Colmar*	**Computing sessions** Eric Chabert *IPHC Strasbourg* Eric Conte *IUT de Colmar*	**14:00 - 15:30** **Exam Muon**
14h30 - 14h50					Break
14h50 - 16h20				Evaluation of Week 4	**16:30 - 18:00** **Multifield**
16h20 - 17h30		PRIVATE STUDIES		PRIVATE STUDIES	AFTERWORK

ESIPAP TIMETABLE 2023 WEEK 5

Detector Technologies & Electronics

Schedule	Monday Feb 13	Tuesday Feb 14	Wednesday Feb 15	Thursday Feb 16	Friday Feb 17
9h - 10h15		**Gaseous Detectors** Jean-Marie Brom *IPHC Strasbourg*	**Sub-Kelvin Quantum Sensors** Martino Calvo	**Signal Processing and Electronics** Daniel Dzahini *UGA*	**Gazeous Neutron Detectors for Slow Neutron Facilities** Bruno Guerard
10h15 - 10h45		**Break**	**Break**	**Break**	**Break**
10h45 - 12h		**Noble liquid detectors** Johann Collot *UGA*	**Semi conductor detectors** Mengqing Wu	**Signal Processing and Electronics** Daniel Dzahini *UGA*	**Cherenkov and transition radiation detectors** Christian Joram
12h - 13h	**WELCOME LUNCH (provided by ESI)**	**LUNCH**	**LUNCH**	**LUNCH**	**LUNCH**
13h - 14h15	**OFFICIAL OPENING : Presentation ESIPAP & students** J. Collot, B. Holland, M. Castelle *ESIPAP Director*	**Introduction to Signal Processing and Electronics** Daniel Dzahini *UGA*	**Scintillation Detectors** Etiennette Auffray *CERN*	**Trigger** Francesca Pastore *University of London*	**Gravitational wave detection** Romain Gouaty *LAPP*
14h15 - 14h35	**Break**	**Break**	**Break**	**Break**	**Break**
14h35 - 15h50	**Inaugural lesson** **Detectors: general aspects** Norbert Wermes *Bonn University*	**Introduction to Signal Processing and Electronics** Daniel Dzahini *UGA*	**Signal Processing and Electronics** Daniel Dzahini *UGA*	**Trigger and Data Acquisiton Software** Enrico Pasqualucci *INFN*	**Detector Technologies tutorials** Johann Collot *UGA*
15h50 - 16h10	**CHECK-IN AT THE RESIDENCE** **&** **SHOPPING FOR GROCERIES**	**Break**	**Break**	**Break**	**PRIVATE STUDIES**
16h10 - 17h30		**Signal Processing and Electronics** Daniel Dzahini *UGA*	**Signal Processing and Electronics** Daniel Dzahini *UGA*		

ESIPAP TIMETABLE 2023 WEEK 6

Real Time Computing & Data Handling

Schedule	Monday Feb 20	Tuesday Feb 21	Wednesday Feb 22	Thursday Feb 23	Friday Feb 24
9h - 10h15	Evaluation of Week 5 PRIVATE STUDIES			**Project Management** Thijs Wijnands *CERN*	**Data Handling Technologies** Alberto Pace *CERN*
10h15 - 10h45				**Break**	**Break**
10h45 - 12h	**10:30 - 12:00** **EXAM** **Signal Processing and Electronics**	*SHUTTLE leaves at 7:30 from ESI to Grenoble*	***9:30*** ***Lab Training Sessions at LPSC***	**Project Management** Thijs Wijnands *CERN*	**Data Handling Technologies** Alberto Pace *CERN*
12h - 13h	**LUNCH**	(Lunch at LPSC)		**LUNCH**	**LUNCH**
13h - 14h15	**PRIVATE STUDIES**	**Lab Training Sessions at LPSC**	(Lunch at LPSC)	**Data Handling Technologies** Alberto Pace *CERN*	**Project Management** Thijs Wijnands *CERN*
14h15 - 14h35				**Break**	**Break**
14h35 - 15h50	**14:30 - 16:00** **EXAM** **Detector Technologies**	(Night in Grenoble : Hotel des Alpes, offered by ESI)	*SHUTTLE leaves at 17:00 from Grenoble to ESI*	**Data Handling Technologies** Alberto Pace *CERN*	**Project Management** Thijs Wijnands *CERN*
15h50 - 16h10				**Break**	**PRIVATE STUDIES**
16h10 - 17h30	**PRIVATE STUDIES**			**FPGA** Hannes Sakulin *CERN*	

ESIPAP TIMETABLE 2023 WEEK 7

Offline Computing

Schedule	Monday Feb 27	Tuesday Feb 28	Wednesday March 1	Thursday March 2	Friday March 3
8h45 - 9h	Evaluation of Week 6				
9h - 10h15	**Magnets for Particle Detectors** Herman Ten Kate *CERN*	**C++ Programming** Sébastien Ponce *CERN*	**C++ Programming** Sébastien Ponce *CERN*	**C++ Programming** Sébastien Ponce *CERN*	**DAQ Lab** Mengqing Wu ?
10h15 - 10h45	Break				
10h45 - 12h	**Magnets for Particle Detectors** Herman Ten Kate *CERN*				
12h - 13h	LUNCH	LUNCH (provided by ESI)	LUNCH	LUNCH	LUNCH
13h - 14h15	**Magnets for Particle Detectors** Herman Ten Kate *CERN*	PRIVATE STUDIES	PRIVATE STUDIES	**13:00 - 14:30** **EXAM** **Magnets for Particle Detectors**	**DEMI-JOURNEE ESA** *Isabelle Rongier* *Yann Dros*
14h15 - 14h35	Break	Break	Break		
14h35 - 15h50	**Additive Printing** Marc Krauth *IPHC Strasbourg*	**Python Programming** Karolos Potamianos *University of Oxford*	**Python Programming** Karolos Potamianos *University of Oxford*	PRIVATE STUDIES	
15h50 - 16h10	Break	Break	Break		
16h10 - 17h30	**Additive Printing** Marc Krauth *IPHC Strasbourg*	**Python Programming** Karolos Potamianos *University of Oxford*	**Python Programming** Karolos Potamianos *University of Oxford*	**16:00 - 17:30** **EXAM** **Multifield**	

ESIPAP TIMETABLE 2023 WEEK 8

Medical Applications & Ultra Cold Neutrons

Schedule	Monday March 6	Tuesday March 7	Wednesday March 8	Thursday March 9	Friday March 10
8h45 - 9h	Evaluation of Week 7				
9h - 10h30	**Medical Radioisotopes** Ulli Koester *ILL Grenoble*	**Medical physics challenges in modern radiotherapy** Jean-François Adam *UGA*	**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
10h30 - 11h	Break	Break	Break	Break	Break
11h - 12h30	**Medical Physics challenges in diagnostic imaging** Jean-François Adam *UGA*	**Photon (x-ray) Imaging** Christian Morel	**Advances in nuclear medicine** Jean-Noel Badel	**X-ray phase contrast imaging in medecine** Emmanuel Brun	**Ultrasound: more than just a non ionizing imaging modality** Hervé Liebgott
12h30 - 13h30	LUNCH	LUNCH	LUNCH	LUNCH (provided by ESI)	LUNCH
13h30 - 17h30	Tutored applied project	Tutored applied project	Tutored applied project	Tutored applied project	Project presentation
					Evaluation of Week 8