Experimental particle physics

esipap
European School of Instrumentation in Particle & Astroparticle Physics

0. presentation

https://github.com/marcodelmastro/ESIPAP-2020

how to derive the Bethe-Bloch formula

"Culture isn't knowing ~~when Napoleon died~~. Culture means knowing how I can find out in two minutes."

Umberto Eco

http://www.spiegel.de/international/zeitgeist/spiegel-interview-with-umberto-eco-we-like-lists-because-we-don-t-want-to-die-a-659577-2.html

"If I could remember the names of all these particles, I'd be a botanist!"

Enrico Fermi

http://pdg.lbl.gov/

Program

Schedule	Monday Jan 20	Tuesday Jan 21	Wednesday Jan 22	Thursday Jan 23	Friday Jan 24
09:00					
	Arrival	Experimental Subatomic Physics lecture 1 Marco Delmastro *LAPP Annecy*	Experimental Subatomic Physics lecture 3 Marco Delmastro *LAPP Annecy*	Experimental Subatomic Physics lecture 4 Marco Delmastro *LAPP Annecy*	Experimental Subatomic Physics lecture 5 Marco Delmastro *LAPP Annecy*
10:30 10:45		Coffee Break	Coffee Break	Coffee Break	Coffee Break
	12:00 OFFICIAL OPENING (welcome & building visit)	Experimental Subatomic Physics lecture 2 Marco Delmastro *LAPP Annecy*	Experimental Subatomic Physics tutorial 1 Marco Delmastro *LAPP Annecy*	Experimental Subatomic Physics tutorial 2 Marco Delmastro *LAPP Annecy*	Experimental Subatomic Physics tutorial 3 Marco Delmastro *LAPP Annecy*
12:15					
14:00	13:00 WELCOME LUNCH	BREAK	BREAK	BREAK	BREAK
	14:30 Presentation of ESIPAP & Presentation of students Johann Collot ESIPAP Director	Experimental Cosmology lecture 1 Juan Macias Perez *LPSC Grenoble*	Experimental Cosmology lecture 3 Juan Macias Perez *LPSC Grenoble*	Experimental Cosmology tutorial 2 Juan Macias Perez *LPSC Grenoble*	Experimental Subatomic Physics tutorial 4 Marco Delmastro *LAPP Annecy*
15:30 15:45		Coffee Break	Coffee Break	Coffee Break	Coffee Break
	Coffee Break	Experimental Cosmology lecture 2 Juan Macias Perez *LPSC Grenoble*	Experimental Cosmology tutorial 1 Juan Macias Perez *LPSC Grenoble*	Experimental Cosmology tutorial 3 Juan Macias Perez *LPSC Grenoble*	Experimental Subatomic Physics tutorial 5 Marco Delmastro *LAPP Annecy*
	16:00 - 17:30 INAUGURAL LESSON TBC				
17:15					
	CHECK-IN AT THE RESIDENCE & SHOPPING FOR GROCERIES				
18:15			AFTER WORK AT ESI		

Program

Schedule 2019	Tuesday	Wednesday	Thursday	Friday
09:00	Lecture 1 units, quantities, kinematics, measurements	Lecture 3 particle interactions in particle detectors	Lecture 4 systems used to identify and measure particle properties	Lecture 5 HEP data analysis basics and S/B optimization
10:30 10:45	Lecture 2 a few things about particle accelerators	*Tutorial A* *particle kinematics particle interactions and detector response*	*Tutorial B* *event display challenge*	*Tutorial C* *data analysis exercise*
12:15				
14:00				*Tutorial D* *analysis of "classic" experiments* *(students' presentation)*
15:30 15:45				Lecture 6 detection of "invisible" particles
17:15				
18:15				