

2025 EFTS Program — Preliminary

Time	Mon, June 30	Tue, July 1	Wed, July 2 🌙	Thu, July 3	Fri, July 4	Colors	
8:15	7:30–8:30 Registration	Coffee	Coffee	Coffee	Coffee	Logistics & events	
8:30 – 9:20	8:30 Introduction to TF Luca Lorini SYRTE & FIRST-TF	Relativity Frédéric Meynadier BIPM, Int'l	FS Combs, basics Tara Fortier, NIST, USA	Synchronization over Digital Networks Martin Langer	8:30–11:30 Laboratory	Lectures	
9:20 – 10:10	Introduction to Oscillators E. Rubiola, FEMTO, FR	Intro Atomic Clocks G. Miletì, LTF, CH	Small Clocks C. Affolderbach, LTF, CH	FS Combs, research Tara Fortier, NIST, USA	3. SDR, GPS & PRN (9:30-11:30) 4. GPS RX & RINEX 5. Atomic clock 6. Resonators	Labs / computer	
10:10 – 10:40	Coffee & cookies	Coffee & cookies	Coffee & cookies	Coffee & cookies		Welcome & Closing	
10:40 – 11:30	Phase Noise E. Rubiola, FEMTO, FR	Atomic Time Scales F. Meynadier BIPM, Int'l	Satellite Synch P. Defraigne, ROB, BE	Optical Clocks Rachel Godun, NPL, UK		Contents By color	
11:30 – 12:20	Variances F. Vernotte, FEMTO, FR	Atomic Clock Physics G. Miletì, LTF, CH	Optical fiber links Cecilia Clivati, INRIM, IT	Time in power grids Mario Paolone, EPFL, CH			Chapter 1 General & Applications Enrico Rubiola
12:20 – 13:50	Lunch	Lunch	Lunch	Lunch	11:30 Quick coffee	Chapter 2 Meas & Oscillators Enrico Rubiola	
13:50 – 14:40	Digital Controls C.E.Calosso, INRiM	Stabilized Lasers J. Gillot, FEMTO, FR (or C. Lacroute)	Cold Atoms M. Delehaye, FEMTO, FR	Clock Synchronization Security Martin Langer	11:45-12:30 Historical Perspective F. Vernotte, FEMTO	Chapter 3 Atomic Clocks Gaetano Miletì	
14:40 – 15:30	Nicolas Vorobyev CNES, FR	Navigation & GNSS P. Defraigne, ROB, BE	Coffee	Coffee	12:30–12:45 Closing	Chapter 4 Timing & Transfer Francois Vernotte	
15:30 – 16:00	Coffee	Coffee	15:10–17:10 Laboratory 1, 3 & 4 (Noise, SDR, RINEX)	15:00–18:00 Laboratory 3. SDR, GPS & PRN 5. Atomic clock 6. Resonators	12:45–14:15 Lunch		
16:00 – 18:00	Laboratory 1. PM/AM noise, 2. Data Analysis	Laboratory 1. PM/AM noise, 2. Data Analysis			18:00 – 19 19 – 20	Go to the pier	14:15–16:15 Visit, Observatory or FEMTO-ST
18:00 – 19	Science, beer and chips at the TF Department (ethanol-free drinks too)	(free time)	20 – 21:30	Social Dinner Boat on the river 19:30 (boat leaves at 19:45)			You are free
19 – 20							
20 – 21:30	Dinner on your own	Dinner on your own	Dinner on your own			Laboratories Y.Gruson, J.M.Friedt, E.Rubiola	
21:20 – 24	Backup for the Astronomy session, depending on weather	Astronomy depending on weather	Last chance for the Astronomy session, depending on weather				

All lectures in Jules Haag auditorium

Last update
December 20, 2024

2025 EFTS Laboratories — Preliminary

Last update
December 20, 2024

Group	Mon 30 16:00–18:00		Tue 1 16:00–18:00		Wed 2 15:10 – 17:10		Thu 3 15:00 – 18:00			Fri 4 8:30 – 11:30		
	16–17	17–18	16–17	17–18	15:10–16:10	16:10–17:10	15–16	16–17	17–18	8:30–9:30	9:30-10:30	10:30–11:30
Ar	Lab.1: PM/AM noise M. Abdel Hafiz C. Fluhr, J. Millo, E.Rubiola Tesla H-I (–102/–103)		Lab.2: Data Analysis F. Vernotte Computers 1.32.32		Lab.3: SDR, GPS & PRN JM. Friedt Computers 1.32.32		Lab.5. Atomic Clock C. Lacroûte, M. Abdel Hafiz 2.22.34 12 people in 4 groups of 3			6:Resonat. V. Giordano 2.26.34	Lab 4. GPS RX, RINEX F. Meyer, E. Meyer N. Gautherot Tesla J (–101)	
Be										6:Resonat. D. Teyssieux 2.28.34		
Cs	Lab.2: Data Analysis F. Vernotte Computers 1.32.32		Lab.1: PM/AM noise M. Abdel Hafiz R. Boudot, J. Millo, E.Rubiola Tesla H-I (–102/–103)		Lab.4 : GPS RX, RINEX F. Meyer, E. Meyer N. Gautherot Tesla J (–101)		6:Resonat. V.Giordano 2.26.34	Lab 3: SDR, GPS & PRN JM. Friedt Computers 1.32.32		Lab.5. Atomic Clock C. Lacroûte, M. Abdel Hafiz 2.22.34 12 people in 4 groups of 3		
Dy							6:Resonat. D.Teyssieux 2.28.34					
Er	Lab.2: Data Analysis F. Vernotte Computers 1.32.32		Free		Lab.1: PM/AM noise M. Abdel Hafiz R. Boudot, E.Rubiola Tesla H-I (–102/–103)		free			free	Lab.3: SDR, GPS & PRN JM. Friedt Computers 1.32.32	
F	free		Lab.2: Data Analysis F. Vernotte Computers 1.32.32				free			free		
Ga	free											

	Full-labs groups				Fewer-labs groups		No labs
	Argon	Beryllium	Cesium	Dysprosium	Erbium	Fluorine	Gallium
1							Max 12 people
2							
3							
4							
5							
6							