

2024 EFTS Week Schedule

Time	Mon, July 1	Tue, July 2	Wed, July 3	Thu, July 4	Fri, July 5	Colors
8:15	7:30–8:30 Registration	Coffee	Coffee	Coffee	Coffee	Logistics & events Lectures Labs / computer Welcome & Closing
8:30 – 9:20	8:30 Introduction to TF Y. Le Coq SYRTE & FIRST-TF	Relativity Frédéric Meynadier BIPM, Int'l	Navigation & GNSS Carsten Rieck, RISE, SE	Synchronization over Digital Networks K. Teichel, PTB, DE	8:30–11:30 Laboratory	Contents By color
9:20 – 10:10	Introduction to Oscillators E. Rubiola, FEMTO, FR	Intro Atomic Clocks G. Mileti, LTF, CH	FS Combs J. Kronjäger, PTB, DE	Cold Atoms C. Lacroûte, FEMTO, FR		
10:10 – 10:40	Coffee & cookies	Coffee & cookies	Coffee & cookies	Coffee & cookies	3. SDR, GPS & PRN (9:30-11:30) 4. GPS RX & RINEX 5. Atomic clock 6. Resonators	Chapter 1 General & Applications Enrico Rubiola
10:40 – 11:30	Phase Noise Craig W. Nelson NIST, USA	Stabilized Lasers C. Lacroûte, FEMTO	Satellite Synch Carsten Rieck, RISE, SE	Optical Clocks Rachel Godun, NPL, UK		
11:30 – 12:20	Variances F. Vernotte, FEMTO, FR	Free-space links Sascha Schediwy Univ. W. Australia	Small Clocks C. Affolderbach, LTF, CH	Attosecond pulses Romain Geneaux CEA, FR	11:30 Quick coffee	Chapter 2 Meas & Oscillators Enrico Rubiola
					11:45-12:30 Historical Perspective F. Vernotte, FEMTO	
12:20 – 13:50	Lunch	Lunch	Lunch	Lunch	12:30–12:45 Closing	Chapter 3 Atomic Clocks Gaetano Mileti
13:50 – 14:40	Digital Controls C.E.Calosso, INRiM	Atomic Clock Physics G. Mileti, LTF, CH	Optical fiber links J. Kronjäger, PTB, DE	Clock Synchronization Security K. Teichel, PTB, DE	12:45–14:15 Lunch	Chapter 4 Timing & Transfer Francois Vernotte
					14:15–16:15 Visit, Observatory or FEMTO-ST	
14:40 – 15:30	Quartz Oscillators Bernd Neubig Axtal Consulting, DE	Atomic Time Scales Frédéric Meynadier BIPM, Int'l	Coffee	Coffee	15:00–18:00 Laboratory 3. SDR, GPS & PRN 5. Atomic clock 6. Resonators	Laboratories Y.Gruson, J.M.Friedt, E.Rubiola
15:30 – 16:00	Coffee	Coffee	15:10–17:10 Laboratory 1, 3 & 4 (Noise, SDR, RINEX)			
16:00 – 18:00	Laboratory 1. PM/AM noise, 2. Data Analysis	Laboratory 1. PM/AM noise, 2. Data Analysis				All lectures in Jules Haag auditorium
18:00 – 19	Science, beer and chips at the TF Department (ethanol-free drinks too)	(free time)	Visit at the Museum of Time, and Drink	Go to the pier		
19 – 20						Last update June 13, 2024
20 – 21:30	Dinner on your own	Dinner on your own	Dinner on your own	Social Dinner Boat on the river 19:30 (boat leaves at 19:45)		
21:20 – 24	Backup for the Astronomy session, depending on weather	Astronomy depending on weather	Last chance for the Astronomy session, depending on weather			

2024 EFTS Laboratories

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

	Regular groups				Additional groups (fewer labs)		Guests
	Argon	Beryllium	Cesium	Dysprosium	Erbium	Fluorine	Gallium
1							
2							
3							
4							
5							
6							