

Press release

Neuchâtel expects 450 Time & Frequency specialists

Neuchâtel, June 18, 2024 – The Swiss city of Neuchâtel is set to host the 37th European Frequency and Time Forum (EFTF) from June 25 to 27. This international conference brings together about 450 participants who will delve into the latest technology trends in frequency and time. The applications span a wide spectrum from metrology and telecommunications to satellite positioning, energy distribution network management, and precise timekeeping that underpins our computers and mobile phones. A Plenary Session open to the public will be dedicated to the Redefinition of the Second.

Organized collaboratively by six partners representing academia, research, and industry – FSRM (Swiss Foundation for Research in Microtechnology), Time Frequency Laboratory (LTF) of the University of Neuchâtel, CSEM, Oscilloquartz, Safran and SFMC (Société française des microtechniques et des chronométries) – the EFTF 2024 promises an engaging blend of oral and poster scientific presentations, along with a dynamic commercial exhibition. Scientists, engineers, and specialists from around the globe will converge in Neuchâtel for the 37th edition of this renowned event.

Professor Gaetano Mileti, co-president of the organizing committee and deputy director with the Time and Frequency Laboratory (LTF) at the University of Neuchâtel (UniNE), underscores the significance of the EFTF: “Since the inception in 1987, the Forum has grown substantially and has become a world renown conference. Every second year, EFTF meets with its North American counterpart the International Frequency Control Symposium (IFCS). In 2024, the EFTF returns to Neuchâtel after 10 years abroad. Our city, with its strong presence in time and frequency in research and industry is the ideal backdrop for this gathering.”

Sylvain Karlen, Group leader for Quantum Technologies in CSEM's Instrumentation Business Unit, emphasizes their commitment: “Helping organize and participate in the EFTF allows us to showcase our activities and foster valuable exchanges with academic and industrial partners.”

The Redefinition of the Second

Conference highlights comprise the Plenary Session dedicated to the *Redefinition of the Second*, which will be open to the public. Esteemed specialists including **Noël C. Dimarcq** (CNRS and CIPM, President of the Bureau des Longitudes, France), **Sébastien Bize**, (LNE-SYRTE, France), and **Davide Calonico**, (INRIM, Italy) will share insights. The *Women in Science* Session will welcome **Patrizia Tavella**, Director of the Time Department at BIPM (International Bureau of Weights and Measures, France).

Neuchâtel: A cradle of universal time

The Neuchâtel region boasts exceptional expertise in the field of time and frequency. Its chronometrical Observatory, established in 1858, gained global recognition for Swiss precision. For decades, it broadcast the 12:30 time signal on Swiss radio. Three centuries ago, its founder and director Adolphe Hirsch proposed the universal time adoption and a reference meridian (Greenwich). Today the region hosts industries specializing in watchmaking, atomic clocks, microtechnology, oscillators, and high-performance lasers. Neuchâtel's globally acknowledged expertise in relation to time and frequency underscores its proficiency in producing small, complex, and reliable precision components. These high-value components are integral to numerous products sold worldwide.

Media relations

UniNE Media Relations

Igor CHLEBNY
Media Relations
+41 79 317 17 58
igor.chlebny@unine.ch

CSEM Media Relations

Sabina MÜLLER
Media Relations
+41 79 361 50 12
media@csem.ch

Members of the organizing committee

UniNE

Prof. Gaetano MILETI
Deputy director
Laboratoire Temps-Fréquence
gaetano.mileti@unine.ch

CSEM

Sylvain KARLEN
Chef de groupe
Instrumentation
sylvain.karlen@csem.ch

Safran

Sophie ZANGS
Product Marketing Director | Marketing |
Safran Electronics & Defense
M +33 (0)6 07 42 39 33

FSRM

Edward BYRNE
Deputy director

byrne@fsrc.ch

Oscilloquartz

Patrick BERTHOUD (Senior Manager of Time &
Frequency CTO)
berthoud@oscilloquartz.com
+41 32 722 55 49

Sylvère FROIDEVAUX (Director Production OSA)
froidevaux@oscilloquartz.com
+41 32 722 55 51

SFMC

Samuel MARGUERON
Secrétaire de la SFMC
contact@sfmc.fr
Samuel.margueron@femto-st.fr
+33 6 61 92 92 88

Additional information

- [Electronic Media Kit](#) in EN / FR / DE (Password: Second_2024)
- Website of the 37th edition of EFTF: <https://eftf2024.ch/wp/>
- Public Plenary Session “*The Redefinition of the Second*” with presentation of the speakers and their abstracts <https://eftf2024.ch/wp/definition-of-the-second/>. Separate registration required.

About the Time Frequency Laboratory of University of Neuchâtel

The Time-Frequency Laboratory (LTF) explores and pushes back the frontiers in the fields of time-frequency, optical metrology and ultrafast science and technology. LTF research focuses on the development of atomic clocks and miniature quantum sensors for space applications. The LTF has also helped Switzerland to join the limited number of countries that actively participate to the definition of the international atomic time (TAI – Temps atomique international). This research has involved developing primary frequency standards, and the unique atomic fountain clock FOCS-2 that operates with a continuous beam of cold cesium atoms. The LTF presently contributes to the effort of the BIPM (Bureau international des poids et mesures) and the international community towards a redefinition of the second. <https://www.unine.ch/ltf/home.html>.

About the FSRM

Created in 1978, the FSRM Swiss Foundation for Research in Microtechnology is an independent, neutral and unbiased institution with a vast network of contacts.

FSRM is specialized in training courses for engineers and researchers. Over 25'000 engineers and researchers already participated in these training courses. The consistently high quality of the FSRM courses is assured through a broad network of experienced tutors from universities, research institutes and companies.

FSRM is also experienced in organizing workshops, summer schools and conferences with up to 1000 participants. FSRM has a long experience in communicating and disseminating project results to a wider audience. It has expertise and efficient tools to plan and organize project tailored trainings, dissemination, and communication activities. www.fsrn.ch

About CSEM—Facing the challenges of our time

CSEM is a Swiss technology innovation center developing advanced technologies with a high societal impact, which it then transfers to industry to strengthen the economy. The non-profit orientated, public-private organization is internationally recognized, and works to support the disruptive activities of companies in Switzerland and abroad. CSEM operates in the domains of precision manufacturing, digitalization, and sustainable energy. To accomplish its mission as gateway between research and economy, CSEM's more than 600 employees from 46 countries collaborate with leading universities, scientific institutions, research institutes, and industrial partners. With its six sites in Allschwil, Alpnach, Bern, Landquart, Neuchâtel and Zurich, CSEM is active all over Switzerland.

www.csem.ch

About Oscilloquartz

Oscilloquartz is a pioneer in time and frequency synchronization with more than 75 years' experience. We design, manufacture, and deploy end-to-end synchronization systems (including Optical cesium primary reference clocks, PTP & NTP Grandmaster, Distribution unit, Low phase noise TimeScales systems, and comprehensive Management systems) that ensure the delivery and assurance of highly precise timing information over next-generation packet and legacy networks, and Metrology applications. As an Adtran company, we are creating new opportunities for tomorrow's networks. www.oscilloquartz.com

About Safran

Safran Timing Technologies, a Safran Electronics & Defense subsidiary, is a world leader in rubidium atomic clocks, ultra-stable oscillators, and Hydrogen MASER, integrated in Global Positioning Navigation System both on board satellites, as well as for ground stations.

Safran Timing Technologies manufactures a large portfolio of atomic clocks, starting from miniaturized Rb oscillators (low SWAP) to active hydrogen MASERs with the best frequency stability. Safran Timing Technologies addresses several markets with numerous uses-cases, with an organization based on 3 product lines: Industry & Defense (IND&DEF), Space and Science & Metrology (SCI&MET).

Whether you need short or long-term stability, our decades of experience designing & manufacturing products and their maintenance is trusted by companies ranging from global enterprises to space initiatives. www.safran-group.com

About the SFMC

Established in 1931, the SFMC is committed to reinforce the relations between the actors of watchmaking, micro-technology, and time-frequency, in order to promote the science of chronometry. In collaboration with the Swiss Foundation for Research in Microtechnology (FSRM), SFMC created the European Frequency and Time Forum (EFTF) in 1987. This international conference was held alternately in Besançon and Neuchâtel until 1992. Then, it has been hosted in other European cities. Since 1999, it has been regularly associated with the IEEE International Frequency Control Symposium (IFCS), at first on a quadrennial base, and thereafter on a biennial base. As a legal entity of the EFTF, the SFMC has organized 4 EFTF and IFCS/EFTF conferences in Besançon and supports the organization of these conferences in other locations, especially by supporting the student attendance, the scientific awards, and setting the agreements between EFTF and IEEE, necessary to publish EFTF proceedings and to organize the joint conferences.