

# Inauguration of the platform SPIN-ANALYTICS

## Program

**MONDAY, MARCH 30<sup>TH</sup>, 2026**

Building: C5 of CEA-Grenoble, 2nd floor, rooms: 421 A and B

9:30 - 10:00 am	<b>WELCOME COFFEE</b>
10:00 - 10:10 am	<b>Introduction</b> Vincent Baltz, CNRS research scientist at SPINTEC Serge Gambarelli, CEA research scientist at SyMMES
10:10 - 10:25 am	<b>Electronic spins untangling structures and reactivity of nucleic acids: a multi-frequency approach</b> Giuseppe Sicoli (LASIRE)
10:25 - 10:40 am	<b>Identification of paramagnetic centers by pulsed EPR and ENDOR in luminescent YAB materials</b> Vincent Maurel (SyMMES)
10:40 - 10:55 am	<b>Assessing the Robustness of the Clock Transition in a Mononuclear <math>S = 1</math> Ni(II) Complex Spin Qubit by pulsed EPR</b> Serge Gambarelli (SyMMES)
10:55 - 11:10 am	<b>SPIN-ANALYTICS for spintronics</b> Vincent Baltz (SPINTEC)
11:10 - 11:25 am	<b>Spin to charge conversion at superconductor/ferromagnetic interfaces</b> Javier Villegas (Laboratoire Albert Fert)
11:25 - 11:40 am	<b>Electrostatic control of the inverse Edelstein effect probed by spin pumping ferromagnetic resonance</b> Laurent Vila (Nellow)
11:40 am - 02:00 pm	<b>VISIT, DEMONSTRATION OF SPIN-ANALYTICS AND LUNCH</b>

# Inauguration of the platform **SPIN-ANALYTICS**

**Advanced Electron Spin Resonance techniques are increasingly used to probe the reactivity of matter or to precisely manipulate electron spins.** For more than 15 years, the Grenoble-based SyMMES and SPINTEC laboratories have been collaborating in this field.

**They are now combining their strengths to establish SPIN-ANALYTICS, a platform of interoperable, next-generation spectrometers.** Thanks to its inclusion in the PEPR LUMA, INFRANALYTICS research infrastructure, and PEPR SPIN programs, SPIN-ANALYTICS is open to chemists, biologists, and physicists from all across France.

**The SPIN-ANALYTICS platform is equipped with two Bruker “EMXplus” spectrometers, and a Rapid Scan (RS) accessory.** One of these setups – X-band spectrometer (9.6 GHz), 0-1.5 T magnet, variable polar angle, compatible with measurements from 4-300 K, combined with a loop-gap resonator and an electrical measurement and bias voltage-application system – is particularly suited to spin pumping experiments involving magnetic resonance and subsequent spin-charge conversion. It can be used to study a wide variety of materials in the field of spintronics, including antiferromagnets, altermagnets, topological insulators, superconductors and semiconductors, as well as interfaces, especially Rashba-type interfaces. The second setup – X-band spectrometer (9.6 GHz), 0-1.5 T magnet, compatible with measurements from 4-300 K, equipped with the RS accessory – has a time resolution on the order of 100  $\mu$ s and can be coupled to incoherent light sources or pulsed lasers (e.g. nanosecond pulsed YAG coupled to an OPO) to study photosensitive systems (e.g. in a context of artificial photosynthesis, semiconductors for photovoltaics, photocatalysis). This equipment is part of the INFRANALYTICS Research Infrastructure and the OPERANDO platform (PEPR LUMA program).

The funding for this platform results from a collaboration between the **SyMMES** and **SPINTEC** laboratories, with financial support from **PEPR SPIN (270 k€)**, **Grenoble INP and UGA (150 k€)**, **PEPR LUMA via INFRANALYTICS (100 k€)**, the **ANR “MATHEEIAS” project (80 k€)**, as well as internal funds from the two laboratories.