



## Scientific Days ARPE 2024

March, 18th 2024 (Amphithéâtre Chaudron) & March, 19th 2024 (Amphithéâtre Moissan)  
– Chimie-ParisTech  
11, Rue Pierre et Marie Curie – 75005 PARIS

### Program

#### March, 18th 2024

9:45 Welcome, coffee

10:00 Opening, **Olivier Ouari**, Chairman of ARPE

10:10-10:30 : General assembly

- Moral assessment
- Financial statement
- Futures actions
- Other elements

**10:30 -11:00 Invited speaker: Alexandre Semerok**, Gif-sur-Yvette (CEA).

*Evguenii Zavoïskii et la découverte de la résonance paramagnétique électronique.*

11:00-11:15 **Leandro Tabares**,

*Using the Noncanonical Metallo-Amino Acid [Cu(II)(2,2'-bipyridin-5-yl)]-alanine as Spin-Label to Study the Structures of Proteins.*

11:15-11 :30 **Iris Wehrung**,

*Decoding LPMO Structures by Theoretical EPR Spectroscopy.*

**11 : 30 -12 :00 Invited speaker : Didier Gourier**, ParisTech.

*The long story of a metaloporphyrin: from its birth in marine plankton to its eternal resting place in an enigmatic Egyptian mummy.*

12:00-14 :00 Lunch break and poster session

**14:00-14:30 Invited speaker: Claudia Tait**, Oxford University.

*Exploring Organic Photovoltaics from the Perspective of Spin: Insights from EPR and EDMR.*

14:30-14:45 **Adrien Savoyant**,

*Spin-State Manipulation in Polar Semiconducting Nanoparticles, ZnO example.*

14:45-15:00 First thesis prize 2024: **Zoé Velluire**,

*Electron spin resonance using high-Tc superconducting resonators.*

15:00 -15:15 Second thesis prize 2024: **Mélanie Rossotti**,

*New insights into bacterial copper resistance: using magnetic resonance to understand the structure and the function of the green cupredoxin CopI.*

15:15 -15:30 **Idris Tlemsani**,

*Pulsed EPR study of a clock transition in a Ni(II) complex.*

15:30-16:00 **Invited speaker: Marilena di Valentin**, University of Padova,

*Light-induced pulsed dipolar EPR spectroscopy based on electron spin hyperpolarization.*

16:00-16:30 Coffee break

16:30-17:00 **Invited speaker: Bruno Guigliarelli**, Aix-Marseille Université

*Bioreduction of CO<sub>2</sub>: EPR, DFT and X-ray crystallography on the tungsten trail*

## **March, 19th 2024**

8:45 Accueil des participants

9:00-9:30: **Invited speaker: Simon Pondaven** (Total energies)

*CR2ME joint laboratory and EPR applications for Total Énergie*

9:30-9:45: **Maryam Seif-Eddine**,

*Operando film-electrochemical EPR spectroscopy: a new technique allowing to follow the evolution of paramagnetic species during redox reactions*

9:45-10:00: **Anabella Ivancich**,

*A non-perturbing redox probe to identify catalytic electron transfer pathways via redox-active amino acids: KatG, tryptophans and the isoniazid prodrug paradigm assessed by EPR spectroscopy.*

10:00 -10:30: Coffee break

10:30 -10:45 **Matthieu Bailleul**

*Résonance magnétique large-bande, des métaux ferromagnétiques aux triangles de spin*

10 :45-11 :00 **David Pianca**,

*Organic flow battery based on alloxazine derivatives: an EPR study.*

11:00-11:15 **Stéphane Zakarian**,

*The quinone binding site and dynamics in the formate dehydrogenase from Bacillus subtilis: an EPR, DFT and molecular dynamics study.*

11:15 -11:30 **Joshua S Harbort**,

*Using EPR Spectroscopy to Investigate the Function of P450s and Design De Novo Catalysts.*

11:30 -11:45 **James O'Sullivan**

*Coherent control and readout of single electron spins by microwave photon counting.*



11:45 - 12:00 **Ilenia Serra,**

*Understanding the molecular basis of industrially relevant biocatalysts: an EPR investigation of chlorite dismutases*

12:00-12:15 **Matteo Boselli,**

*Developing an Electron Spin Resonance spectrometers using superconducting microwave resonators.*

12:15 -12h30 **Alessio Bonucci,**

*Combining EPR and NMR spectroscopies to investigate the function and dynamics of XRCC4 protein involved in the non-homologous DNA end joining pathway.*