

# CNRS thematic school of NMR in solution and solid state applied to the structural and dynamic characterization of polymer materials.

**SAVE THE DATE:**  
**17/04/2024 – 19/04/2024**  
**Lyon, Rhône**



## Organisation committee

*Carlos Fernández de Alba (CNRS, IMP)*  
*Fernande Da Cruz-Boisson (CNRS, IMP)*  
*Paul Sotta (CNRS, IMP)*

The thematic school will take place at  
**Center Jean Bosco**

3 minutes walk from the Basilica of Notre-Dame de Fourvière and 30 minutes from the Perrache and Part-Dieu SNCF train stations



## Contact

*Web: [rmn-et-polymere.sciencesconf.org](http://rmn-et-polymere.sciencesconf.org)*  
*Mail: [rmn-et-polymere@sciencesconf.org](mailto:rmn-et-polymere@sciencesconf.org)*



## Objectives

The main objective of the school is the acquisition of an understanding of the NMR methodologies available to date for the characterization of polymer materials. The knowledge of the state of the art in this field shall allow participants: (i) to effectively understand NMR characterization in the most recent innovations in polymer materials science, (ii) to master the concepts to adapt them to their problems in a reasoned manner (iii) to identify the relevant methodologies to meet their needs, (iv) to master the concepts for the implementation of NMR experiments, (v) to extract the maximum amount of structural, dynamic and quantitative information from NMR experiments.

## Round-Table : “Meet the experts”

At the end of each day, a session will be devoted to discussions with the speakers on the proposed themes. Participants will then have the opportunity to present their problems in the field of characterization of polymer materials to explore how NMR can answer them.

## Topics program

### Microstructure by solution NMR and NMR coupled to SEC

*Marianne Gaborieau, KIT, Karlsruhe*

### Solid-state NMR and characterization of nanostructured materials

*Cédric Lorthioir, LCMCP, Paris*

### Relaxometry and molecular dynamics

*Paul Sotta, IMP, Lyon*

### NMR imaging of polymer membranes

*Jean Christophe Perrin, LEMTA, Nancy*

### Solid-state DNP applied to polymer materials

*Stéphane Viel, ICR, Marseille*

### Self-diffusion: DOSY experiments

*Sarah Mailhot, BRUKER, Allemagne*

### Spin diffusion and measurement of heterogeneity scales

*Samuel Cousin, ICR, Marseille*

### Solid-state NMR at very high rotation speed

*Gerhard Althoff, BRUKER, Allemagne*