

## GENERAL INFORMATION

This Summer School is open to PhD students, post-docs, researchers and engineers, from both academia and industry interested in the catalysis field.

## REGISTRATION

Online applications:

<https://schoolcat2024.sciencesconf.org>

Registration open: March 01<sup>st</sup>, 2024.

Please note that the number of participants is limited and the selection will be on a first-come-first-served basis.

## FEES

Period	01 March to 30 April	01 May to 21 June
PhD, post-docs, master students	420 €	500 €
Seniors from academia	450 €	550 €
Industrials	650 €	700 €

The registration fees include Summer School accommodation, electronic book of abstracts, list of participants, food (breakfasts, lunches, dinners, gala dinner), and beverages during the Summer School.

## CANCELLATION AND REFUNDS

Cancellations are only accepted by e-mail and refunds before May 31<sup>st</sup>, 2024.

## GENERAL INFORMATION

## VENUE

Ecole des Mines d'Albi-Carmaux  
Campus Jarlard  
81013 Albi, France

(<https://www.imt-mines-albi.fr/en/campus-0>)

## ACCOMMODATION

The conference will benefit from the on-site residence for students of the Ecole des Mines d'Albi-Carmaux. Apartments (20 m<sup>2</sup>) are equipped with the standard facilities.

## ORGANISERS

Group of Catalysis in Toulouse (C@T)  
R. Fauré, M. Gómez, J-F. Lahitte, E. Manoury, B. Martin Vaca, D. Pham Minh, P. Serp, K. Soulantika

## CONTACT

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Catalysis:  
from understanding  
to applications

June 17-21, 2024

Albi, France

<https://schoolcat2024.sciencesconf.org>



## Heterogeneous, homogeneous and enzymatic catalysis

**Mechanism and understanding**  
Part 1 - Kinetics

**Mechanism and understanding:**  
Part 2 – Operando techniques

**Catalysis and chemical processes**

**Application:**  
Electrocatalysis:  
from fundamentals to applications

And also flash presentations, posters, panel discussion, etc...



Catalysis in Toulouse



3 <sup>RD</sup> SUMMER SCHOOL IN CATALYSIS: 2024		3 <sup>RD</sup> SUMMER SCHOOL IN CATALYSIS: 2024		3 <sup>RD</sup> SUMMER SCHOOL IN CATALYSIS: 2024	
PROGRAMME		PROGRAMME		PROGRAMME	
<b>Monday, 17 June 2024</b>		<b>Wednesday, 19 June 2024</b>		<b>Thursday, 20 June 2024</b>	
11:00 – 12:00	Reception	8:30 – 10:00	<i>UV-Vis spectroscopy tools of the trade for kinetic studies</i> Manuel Martinez, Univ. Barcelona, Spain	<b>PROCESSES</b>	
12:00 – 14:00	Lunch		10:00 – 10:30	Coffee break	14:00 – 15:30
14:00 – 14:15	Welcome – General information	10:30 – 12:00		<i>Mechanism and reactivity using kinetic methodology for heterogeneous catalytic reactions</i> P. Fongarland, IRCELYON, Lyon, FR	15:30 – 16:00
<b>INTRODUCTION TO CATALYSIS</b>			12:00 – 14:00	Lunch	16:00 – 17:30
14:15 – 15:45	<i>Introduction to Machine Learning for Chemists: Visualization, Data Processing, Analysis, and Modeling</i> R. Poteau, LPCNO, Toulouse	<b>MECHANISM UNDERSTANDING - Part 2</b>		17:30 – 19:00	<i>Design &amp; modeling of multiphase catalytic reactors</i> C. Julcour, LGC, Toulouse, FR
15:45 – 16:15	Coffee break	14:00 – 15:30	<i>Enzyme kinetics: Theory and practice</i> Emeline Fabre, TBI Toulouse, France	20:00 – 23:00	Friendly diner
16:15 – 17:15	Flash presentations	15:30 – 16:00	Coffee break	<b>Friday, 21 June 2024</b>	
17:15 – 19:00	Poster session	16:00 – 17:30	<i>Non-quantum based modeling: What insights to expect on catalysis and recognition?</i> J-D. Maréchal, Univ. Autonoma Barcelona	<b>ELECTROCATALYSIS: FROM FUNDAMENTALS TO APPLICATIONS</b>	
19:30 – 21:00	Diner	17:30 – 19:00	<i>Practical work - Non-quantum based modeling: What insights to expect on catalysis and recognition?</i> J-D. Maréchal, Univ. Autonoma Barcelona	8:30 – 10:00	<i>Electrocatalysis using (nanostructured) metals: From fundamentals to application in electrolyzers and fuel cells</i> Y. Holade, ENSCM, Montpellier, FR
<b>Tuesday, 18 June 2024</b>		19:30 – 21:00	Diner	10:00 – 10:30	Coffee break
<b>MECHANISM UNDERSTANDING - Part 1</b>		<b>Thursday, 20 June 2024</b>		10:30 – 12:00	<i>Molecular Electrochemistry: a tool for mechanism analysis</i> C. Costentin, Univ. Grenoble, FR
8:30 – 10:00	IR and Raman spectroscopies for characterizations in heterogeneous catalysis : in situ and operando approaches G. Clet, LCS, Caen, FR	<b>MECHANISM UNDERSTANDING - Part 2</b>		12:00 – 13:30	Lunch
10:00 – 10:30	Coffee break	8:30 – 10:00	<i>Modeling catalytic reaction mechanisms with porous materials</i> Manuel A. Ortuño Univ de Santiago de Compostela, Spain	13:30 – 15:00	<i>Microbial and Enzymatic electrocatalysis : fundamentals and applications</i> J.-M. Fontmorin, LGC, Toulouse, FR
10:30 – 12:00	<i>NMR as a mechanistic probe: uniqueness and practicalities</i> Andres Garcia Dominguez, Univ Edinburgh, UK	10:00 – 10:30	Coffee break	15:00 – 16:00	Feedback from participants - Concluding remarks
12:00 – 14:00	Lunch	10:30 – 12:00	<i>Organocatalysis: some concepts and applications in organic synthesis</i> J.-F. Brière Univ of Rouen Normandie, FR		
14:00 – 15:30	<i>Operando X-ray Absorption Spectroscopy : a local order technique for shedding light on catalyst behaviour</i> Valerie Briois, Synchrotron Soleil, FR				
15:30 – 16:00	Coffee break				
16:00 – 17:00	Flash presentations				
17:00 – 18:30	Poster session				