

Swiss Summer School on Materials Chemistry

This summer school focuses on the **characterization of materials through X-ray total scattering**, often combined by Pair Distribution Function (PDF) analysis. The materials are typically inorganic nanocrystals, but the technique is increasingly used to study a variety of materials, ranging from organic materials, over metal-organic frameworks, to bulk materials with nanoscale defects. The target audience comprises PhD students and postdocs with some experience in X-ray total scattering, and who want to gain familiarity with the multitude of advanced tools that are available in the total scattering community.

We will discuss a broad set of approaches aiming at increasing the understanding of the participants and providing them with the tools (Diffpy-CMI, Debussy, DISCUS) to analyze their data. We combine tutorial lectures with hands-on workshops, including data visualization using python.

Target audience

The event targets PhD students, Postdocs as well as junior scientists from industry.

Teaching Body

- **Prof. Federica Bertolotti**, Università degli Studi dell'Insubria and To.Sca.Lab
"Debussy"
- **Prof. Reinhard Neder**, Friedrich-Alexander-Universität Erlangen-Nürnberg
"Building complex and decorated nanoparticles with DISCUS"
- **Dr. Adam Sapnik**, University of Copenhagen
"Diffpy CMI"
- **Dr. Simon Boehme**, ETH Zurich
"Data visualization with python"
- **Dr. Maxwell Terban**, Momentum Transfer, Germany
"PDF on organic molecules and polymers"

Location

Fribourg, Le Domaine Notre-Dame de la Route
Ch. des Eaux-Vives 17, 1752 Villars-sur-Glâne
www.domaine-ndr.ch

matsem25.scg.ch

SCS Division of Materials Chemistry

Swiss Summer School on Materials Chemistry 2025

June 23-24, 2025

Fribourg, Villars-sur-Glâne

Le Domaine Notre-Dame de la Route



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SCS
Swiss Chemical
Society
**Division of
Materials Chemistry**

Program Overview

	Sun, 22.06.2025	Mon, 23.06.2025	Tue, 24.06.2025	Wed, 25.06.2025
08.00		Check-In		
08.30				
09.00		Total Scattering from reciprocal space to real space	Debussy/DISCUS/diffpy	Swiss MatChem Symposium 09.15 Welcome Message by Dr. Andrea Doderò, AMI Fribourg Lectures - Prof. Wendy Queen, EPFL - Dr. Stefano Canossa, ETHZ - Dr. Adam Sapnik, Univ. Copenhagen - Prof. Maarten Nachtegal, PSI - Prof. Murielle Delley, Univ. of Basel - Prof. Damiano Genovese, Univ. Bologna Poster Session Contributed talks (4x 15min) Aperitif 18.00 End of the symposium
09.30		break	break	
10.00		Debussy hands-on tutorial	Data visualization hands-on tutorial	
10.30				
11.00		Lunch Break	Lunch Break	
11.30				
12.00				
12.30				
13.00		DISCUS hands-on tutorial	From inorganic to organic materials	
13.30				
14.00		break	break	
14.30				
15.00				
15.30				
16.00		Diffpy-CMI hands-on tutorial	Free session, all tutors are available	
16.30				
17.00	Individual arrival of guest and participants at Le-Domaine, that cannot travel to Fribourg on Monday morning			
17.30				
18.00				
18.30				
19.00				
19.30		Dinner & Get-together	Conference Dinner, Rest. Fribourg MatChem Summer School + MatChem Symposium	
20.00				

Registration

Deadline for registration is April 17, 2025

Registration Fees	SCS Member	Non-Member
Students/Postdoc	CHF 400	CHF 500
Senior Participant	CHF 500	CHF 600
Single room accommodation	+CHF 50.00	+CHF 50.00

The registration fees cover accommodation (full board) and seminar charges, plus the participation in the MatChem Symposium on June 25, 2025.

The number of participants is limited to 40.

Certificate

Each participant will get a certification showing the discussed and the acquired competences.

matsem25.scg.ch

Organizing Committee

- Dr. Jonathan De Roo, University of Basel
- Prof. Jovana Milic, AMI Fribourg
- Prof. Maksym Kovalenko, Empa / ETH Zurich
- Dr. Simon Böhme, ETH Zurich

Conference Secretariat

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