

SCS Symposium on AI 2024 «Critical Use of AI in Chemistry»

On November 25th, 2024, the first symposium in a series of events on 'Critical use of AI in Chemistry' will take place at University of Fribourg. The focus of this first event is on the use of AI in Quantum Chemistry.

The rapid progress of Artificial Intelligence (AI) is transforming nearly every facet of our society and scientific research, with Quantum Chemistry not being an exception. AI transforms this field, rapidly impacting molecular and material simulations at various scales. A critical examination of AI applications in Quantum Chemistry is essential to discern areas where AI can significantly contribute and identify realms where current AI approaches fall short. The conference will explore AI's dual role in advancing Quantum Chemistry by enhancing developments and accelerating quantum chemistry through AI surrogate models replicating its methods.

 #aisymposium24

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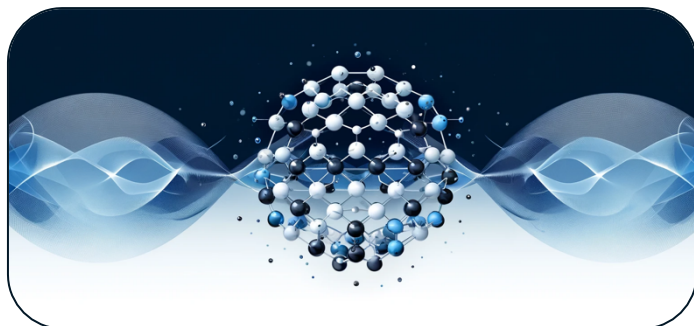
ai24.scg.ch

SCS Symposium on AI 2024

«Critical use of Artificial Intelligence in Chemistry»

University of Fribourg

November 25, 2024, 09.00 - 18.00



UNIVERSITÉ DE FRIBOURG
UNIVERSITÄT FREIBURG

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Organizing Committee

Prof. Stefan Vučković, University of Fribourg (Chair)

Dr. Miroslava Nedyalkova, University of Fribourg

Dr. Attila Cangi, Helmholtz-Zentrum Dresden-Rossendorf

Registration

Participation is free of charge. However, registration is mandatory via the conference website: <https://ai24.scg.ch/registration>

Deadlines

Fri, 04.11.2024 Deadline poster application (call for abstracts)

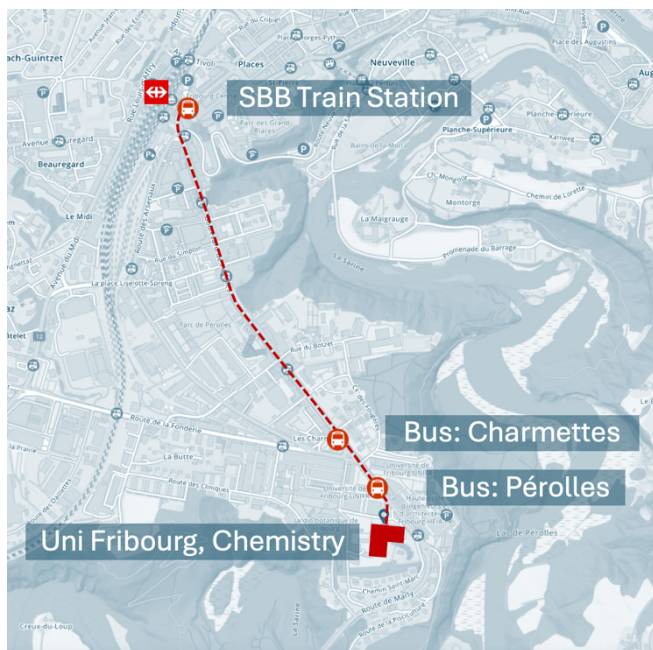
Wed, 15.11.2024 Notification of acceptance for posters and the two contributed talks

Fri, 16.11.2024 Deadline for registration

Mon, 25.11.2024 Start of the event

Location

University of Fribourg
Department of Chemistry
Chemin du Musée 9
1700 Fribourg



Program

- 09.00 Welcome Coffee and Registration
- 09.30 Welcome Message by
Prof. Stefan Vuckovic, University of Fribourg
- 09.45 **Prof. Sereina Riniker**, ETH Zurich
«Learning physical interactions for molecular dynamics simulations»
- 10.25 **Dr. Ruben Laplaza**, EPFL Lausanne
«Navigating homogeneous catalyst landscapes»
- 11.05 Short break
- 11.25 2 contributed talks à 15min
Application deadline is November 11
- 11.55 **Dr. Zoe Cournia**, Biomedical Research Foundation Academy of Athens
«Predicting protein-ligand, protein-protein and protein-membrane interactions using molecular simulations and AI»
- 12.35 Lunchbreak
Poster Session
- 14.00 **Prof. Alexandre Tkatchenko**, University of Luxembourg
«Towards AI-enabled Fully Quantum (Bio)Molecular Simulations»
- 14.40 **Dr. Elias Polak**, University of Fribourg
«Real-space machine learning of correlation density functionals»
- 15.20 Short break
- 15.40 **Prof. Jeremy Richardson**, ETH Zurich
«Machine-learning acceleration for semiclassical and nonadiabatic dynamics»
- 16.20 **Prof. Markus Meuwly**, University of Basel
«Constructing, Validating and Using Machine-Learned Potential Energy Surfaces»
- 17.10 Closing words
- 17.15 Aperitif
- 18.00 End of the Symposium