



**Ali Hassanali** was born in Tanzania but grew up in Kenya. I moved to the US for my undergraduate where I majored in Mathematics and Computer Science at Purdue University. I then obtained my PhD in 2010 at The Ohio State University working on the development and application of computational models to study water near interfaces. After a 3 year Post-doc with Prof. Michele Parrinello, I moved to the CMSP group at the ICTP where I began my independent career. My research is at the boundary between physics, chemistry and biology. I am interested in the physical chemistry of liquids with a special focus on aqueous systems. We use advanced computational techniques including both classical and first principles electronic structure approaches to investigate the structural, dynamical and electronic properties of organic matter immersed in water. We collaborate with leading experimental groups in the field.



**Davide Bonifazi** was born in Guastalla (Italy) in 1975. After obtaining the "Laurea" in "Industrial Chemistry" from the University of Parma working with Prof. Enrico Dalcanale, he joined the group of Prof. François Diederich as PhD student at the ETH Zürich (2000-2004). He was awarded the Silver Medallion of the ETH for his doctoral dissertation (2005). After a one-year postdoctoral fellowship with Prof. Maurizio Prato at University of Trieste, he joined the same University as part-time researcher and Professor (2007-2015). In 2006, he joined the University of Namur (BE) as Junior Professor (2006-2011) and as Professor of Organic Chemistry (2012-2015). From 2016 to 2020 he was Chair Professor of Organic Supramolecular Chemistry in the School of Chemistry at Cardiff University (UK). since April 2020 Professor in Organic Chemistry, Department of Organic Chemistry, Faculty of Chemistry, University of Vienna. His activities are focused on the creation of functional organic architectures in interdisciplinary projects through targeted organic synthesis, self-assembly, and self-organization of organic architectures in solution and on surfaces, physical-organic studies, material- and bio-based design.



**Joseph S. M. Samec** received his Ph.D. from University of Stockholm in 2005 with Prof. Bäckvall as supervisor. After a postdoctoral training with Prof. Grubbs (Nobel Prize Chemistry, 2005) at CalTech during 2006-2007, he was appointed as Assistant Professor at University of Uppsala in Sweden. In 2015 he moved to Stockholm University where he is currently professor. His research interest focuses on green chemistry in organic synthesis and biomass processing and applications: with a special emphasis on lignin valorization. 2012 he founded RenFuel, a start-up company that is producing biofuels from lignin; 2015 RenCom; 2018 RenFuel Materials that produce materials from lignin.

#### Organizing Committee

Prof. Enzo Alessio  
Prof. Elisa Moretti  
Prof. Claudia Crestini  
Prof. Mauro Stener

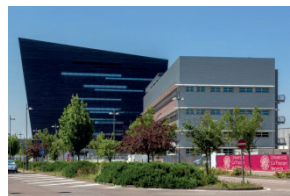
#### Organizing Secretariat

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#### Venue

Auditorium Danilo Mainardi  
Scientific Campus  
Via Torino 155, 30172 Venezia Mestre (Italy)



#### in videoconference at

<https://zoom.us/j/85130567925>  
passcode: school1

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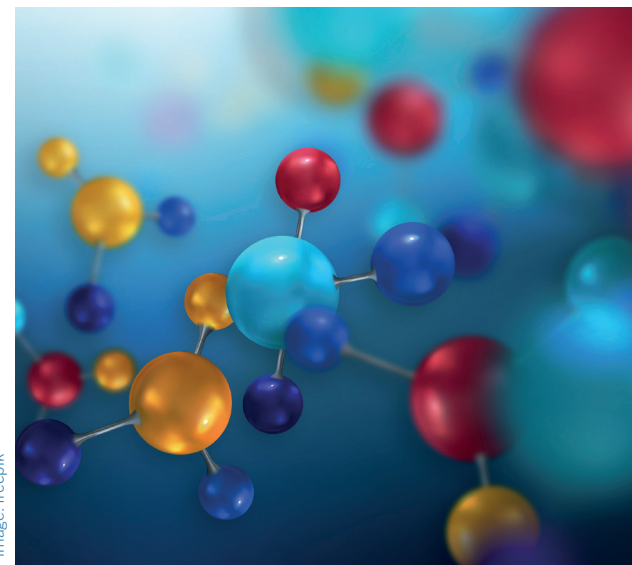
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Ca' Foscari  
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## Joint Doctoral Program in Chemistry 4th Winter School

**Mentoring for Chemists:  
Bringing Excellence  
to Grow Excellence**

**February, 08th - 09th 2024**

Auditorium Danilo Mainardi  
Scientific Campus  
Ca' Foscari University of Venice

## Programme

### Thursday, February 8th 2024

14.00

Welcome opening

14.10 – 15.00

Conference

**Dr. Giulio Ragazzon**, Institut de Science et d'Ingenierie Supramoléculaires (ISIS) in Strasbourg, France  
*Using molecular machines for purposes different from motion*

15.00 – 15.25

Coffee break

15.25 – 16.15

Conference

**Prof. Heiko Lange**, Università Milano-Bicocca  
*Gone with the flow: fractional dissolution as key step for lignin fractionation and functionalization*

16.15 – 17.05

Conference

**Prof. Enrique Rodríguez-Castellón**, University of Málaga  
*Application of X-Ray Photoelectron Spectroscopy on the Study of Adsorbents and Catalysts"*

17.05 – 17.55

Conference

**Prof. Joseph Sven Malcolm Samec**, Stockholm University  
*Lignin valorization: A key to supply future demands of aromatic chemicals*

18.00

Concluding remarks

### Friday, February 9th 2024

9.00 – 9.50

Conference

**Dr. Ali Hassanali**, The International Center for Theoretical Physics (ICTP) in Trieste  
*Wild Fluctuations in Aqueous Systems: Implications in Physics, Chemistry and Biology*

9.50 -10.40

Conference

**Prof. Davide Bonifazi**, Universität Wien  
*Unlocking the photochemical functionalities of polycyclic heteroaromatics through oxidation reactions*

10.40 – 11.10

Coffee break

11.10 – 13.00

Flash presentations

**Alice Biasin (UniTs)**  
**Matteo Bordin (UniVe)**  
**Gianluca Centrone (UniTs)**  
**Nicola Compagno (UniVe)**  
**Ilenia D'Abbrunzo (UniTs)**  
**Elisa De Piante (UniTs)**  
**Anastasia S. Gaetano (UniTs)**  
**Simone Guazzi (UniTs)**  
**Paolo Guzzonato (UniVe)**  
**Martina Mamone (UniTs)**  
**Daniele Massari (UniVe)**  
**Federico Nolasco (UniTs)**  
**Margherita Persico (UniTs)**  
**Erica Scarel (UniTs)**  
**Neva M. E. Stucchi (UniVe)**  
**Demi Vattovaz (UniTs)**

13.00

Concluding remarks

13:10

Lunch in ALFA Building Hall



**Giulio Ragazzon** is a junior group leader at the Institut de Science et d'Ingenierie Supramoléculaires (ISIS) in Strasbourg, France. He studied chemistry at the University of Trieste, with a thesis on photoactive metal complexes. After moving to the University of Bologna for the Master's degree, he obtained his PhD in 2017 from the same institution, working on light-driven molecular machines. During his postdoc, he worked on non-equilibrium self-assembly at the University of Padova, showing how the principles underlying molecular machines can be exploited to realize thermodynamically unfavored self-assembly processes. He then joined the University of Trieste as an assistant professor, before starting his independent career at ISIS in 2021. His group investigates non-equilibrium processes occurring at the molecular scale. As a result of his contributions, he received prestigious awards and grants: in 2016, he received the European Young Chemist Award, the most important European recognition at the PhD level; in 2021, he received the ERC Starting grant. You can learn more about Giulio from his author profile: Angew. Chem. Int. Ed. 2023, e202300382.



**Prof. Enrique Rodríguez-Castellón** is Full Professor at the University of Málaga and President of the Inorganic Division of the Royal Society of Chemistry of Spain. He has more than 45 years of experience in teaching and researching. He has published more than 630 scientific papers, 36 book chapters and 8 patents. More than 20000 citations and h =65 (SCOPUS). He has participated in 7 European Projects, 37 national and regional projects and 20 contracts with different water and energy companies. He is specialist in Materials Science, Environmental Catalysis, Adsorption with special interest in CO<sub>2</sub> capture, H<sub>2</sub> generation and purification, X-Ray Photoelectron Spectroscopy and Wastes valorization. He is Doctor Honoris Causa by the Federal University of Ceará (Brazil).



**Heiko Lange** believes in trans- and interdisciplinary research. He was thoroughly trained as organic chemist, before extending into all the major adjacent fields during his postdoctoral and early career stages. Currently, HL is Associate Professor for General and Inorganic Chemistry at the University Milano-Bicocca, and holds a position as Associate Visiting Professor at the Luleå University of Technology. HL's research comprises the use of various natural polyphenols for nanostructured functional particles, capsules and fibres for controlled and targeted drug delivery purposes, their isolation as well as their valorization in and for various fields of applications using chemical, biotechnological and thermal means. HL is convinced that the basis of all these activities is a sound structural understanding of the polyphenolic starting materials. In his contribution to the Winter School, HL will present on the use of flow chemistry principles to arrive at a scalable fractionation of lignins, and how to exploit the underlying concept of fractional dissolution to continuous biotechnological lignin valorization.