Basic lecture program
- EC2/BIG-NSE Initial Phase WS 2022 -

All lectures will be given in **English**. Everyone in UniSysCat welcome to attend!
A "Zoom" link will be sent to potential participants prior to each lecture

Date	Time	Lecturer	Subject basic lecture	P?*
Tu. Oct. 04	13:00-15:00	Prof. Thomas (TU)	General presentation of UniSysCat	P
Tu. Oct. 11	13:00-15:30	Prof. Roldan (FHI)	Surface science and x-ray synchrotron methods applied to Nanocatalysis	
We. Oct. 12	13:00-15:30	Prof. Mroginski (TU	Modeling biological systems	P
Th. Oct. 13	13:00-15:30	Dr. Nunes Alves (TU)	Machine learning to predict kinetic rates for protein-ligand binding	P
Mo. Oct. 17 or Mo. Oct. 31	13:00-15:30	Prof. Neubauer (TU)	Introduction of the fed batch technology as the basis for high cell density efficient bioprocesses	
Tu. Oct. 18	13:00-15:30	Prof. Heberle (FU)	Research integrity	
Th. Oct. 20	13:00-15:30	Prof. Braun (HU)	Principles in homogeneous catalysis	P
Mo. Oct. 24	13:00-15:30	Prof. Schomäcker (TU)	Fundamentals of chemical reaction engineering I	
Tu. Oct. 25	13:00-15:30	Prof. Schomäcker (TU)	Fundamentals of chemical reaction engineering II	
We. Oct. 26	13:00-15:30	Prof. Hess (TU)	Modelling catalyst degradation through experiment and computation	
Th. Oct. 27	13:00-15:30	Prof. Wendler (UP)	How can Cryo EM help in understanding enzymatic catalysis?	
Tu. Nov. 01	13:00-15:30	Prof. v. de Krol (HZB)	Solar fuels: from materials Chemistry towards devices	
We. Nov. 02	13:00-15:30	Dr. Trunschke (FHI)	Accelerated catalyst design through digital catalysis - new concepts for automation, data acquisition and storage in catalysis research	P
Th. Nov. 03	13:00-15:30	Dr. Schlesiger (TU)	Basics and applications of laboratory-based X-ray absorption fine structure (XAFS) spectroscopy	P
Mo. Nov. 07	13:00-15:30	Dr. Lenz (TU)	Enzymatic catalysis	
We. Nov. 09	13:00-15:30	1. Dr. Zebger (TU) 2. Dr. Horch (FU)	1. Vibrational spectroscopic methods to elucidate (bio)catalytic mechanisms in metalloenzymes 2. Understanding catalyst dynamics by time-resolved and non-linear vibrational spectroscopy	
Mo. Nov. 14	13:00-15:30	Prof. Repke (TU)	Engineering analysis of methane and CO_2 activation	
We. Nov. 16	13:00-15:30	Prof. Thomas (TU)	Nanostructured catalysts	
Th. Nov. 17	13:00-15:30	Prof. Ray (HU)	Physical methods in bioinorganic chemistry	

* P=Presential/offline: In case all students are altready in Berlin and the Covid rules make it possible.