H2020-MSCA-ITN-2020

1st YIELDGAP School

13-17 December 2021, digital (KTH)

Schedule

Monday 13 December
– Intro to experimental and computational techniques for yield-stress fluids
Preparations: Matlab will need to be installed the laptop/desktop you use

- 8.50-9 Welcome (Outi Tammisola, YIELDGAP coordinator, KTH)

- 9-11   'Computational techniques for viscoelastic fluids'
  (Lecturer: Gaetano D'Avino, Univ. Of Naples)

- 11-12 'Computational techniques for elastoviscoplastic fluids'
  (Lecturer: Outi Tammisola, KTH)

- 12-13 Lunch

- 13-15 'Yield stress fluids: from microstructure dynamics to flow properties'
  (Lecturer: Michel Cloitre, ESPCI)

- 15-17 'Introduction to the Rheology of Complex Fluids'
  (Lecturers: J Tsamopoulos and/or Y Dimakopoulos, Univ. Of Patras)

Tuesday 14 December
– Technology companies working with yield-stress fluids
Preparations: Install Matlab and Excel

- 9-12, 'Industrial rheology – Present food product rheology and how we use the rheological data to be able to predict our processes.'
  (Lecturer: Dragana Arlov, Tetra Pak, Sweden)

- 12-13 Lunch

- 13-14 'Rheological characterisation of dense non-Brownian suspensions for the electronics industry.'
  (Lecturer: Fabian Carson, Mycronic, Sweden)

- 14-15   'Slurries   and   gels: some   rheological   studies'
  (Lecturers: Steven Meeker and Leïle Khacef, Solvay, France)

- 15-16 'Formulating consumers goods with yields stress: motivation, challenges and approach'
  (Lecturer: Vincenzo Guida, P&G, Belgium)

- 16-17 'Rheological considerations in the design and production of homecare goods' (Lecturer: Panos Kotsakis, Rolco Bianil, Greece)

Wednesday 15 December
– Communicating research, media training, public engagement

Preparations: No written preparation is needed, but do revisit your latest text (i.e. Master thesis, paper or article). You will be using your previous work during some of the exercises and should therefore be prepared answer questions like these: What did you do? How did you do it? Why? With what result? Who benefited from your work? How and why?

- 9.00 – 12.00 Introduction to communication and rhetoric.
  (Lecturer: Linda Söderlindh, Unit of Language and Communication, KTH)
  A theoretical framework for understanding the realm of research communication in different situations and aimed at different audiences will be presented, along with practical tools and rhetorical concepts for crafting and delivering effective messages about research to primarily non-expert audiences and the media. May include short exercises.

- 12-13 Lunch

- 13-15 Practical applications and exercises. Introduction to written assignment
  (Lecturer: Linda Söderlindh)

Thursday 16 December
– Introduction to high-performance computing

Preparations: Install python3 on your laptop/desktop. Windows users will need to install and use the WSL2 (https://docs.microsoft.com/en-us/windows/wsl/install). Mac users need to have installed the Xcode on their system. For the Linux, there is nothing specific to install.

- 9.00 – 12.00   High-Performance Computing Aspects for Scientific Application Development
  (Lecturer: Stefano Markidis, Div. Computational science and technology, KTH)

- Lunch

- 14.00-15.00 Invited seminar: Maziyar Jalaal, Univ. Of Amsterdam

- 16.00-17.00 Invited seminar: Emad Chaparian, UBC

Friday 17 December
– Mobility, cross-sectorial secondments, intercultural competence
Preparations: Look through the video and references on this website: https://synergizer.se/ic-workshop . Download Workbook.

- 12.30– 13.00   Why mobility and secondments in ITN projects?
  (Outi Tammisola, KTH)

- 13.00– 16.00   Intercultural competence workshop
  (Lecturer: Alena Ipanova, responsible teacher of course SL1600 Intercultural
  competence, KTH)