

SIAMUF

The Swedish Industrial Association for Multiphase Flows has the objectives to:

- Broaden the Swedish competence base in multiphase fluid flow
- Increase awareness of the international developments in the field
- Identify relevant industrial research fields in the field
- Promote the exploitations of results from multiphase flow research programs to Swedish industry

SIAMUF was formed in fall 1999. The Board consists of the following persons:

Fredrik Innings
Tetra Pak
(Chairman)

Andreas Mark
Fraunhofer
Chalmers
(Secretary)

Ingela Niklasson Björn
Astra Zeneca R&D

Tomas Vikström
Valmet

Olle Törnblom
Alfa Laval Tumba

Alf-Erik Almstedt
Chalmers
(coordinator,
treasurer)

SIAMUF has its base at Applied Mechanics, Chalmers, SE 412 96 Göteborg.

Coordinators:
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SIAMUF

The Swedish Industrial Association for Multiphase Flows



20 år SIAMUF

SIAMUF seminarium 9-10 oktober 2019 Chalmersska Huset, Göteborg

Vi välkomnar våra medlemmar, forskningspartners och övriga intresserade till höstmöte som firar **20 år av SIAMUF**. Seminariet tar plats i Göteborg den **9 och 10 oktober på Chalmersska Huset**.

Vi välkomnar två inbjudna talare, professorer Bernhard Peters (Luxemburgs universitet) och John Tsamopoulos (University of Patras) som pratar om de senaste utmaningarna från diskreta elementmodellering och dynamik av komplexa fluider.

Program

9 oct

12.00

Lunch och registrering (registrering från kl. 11.40)

13.00

Seminarium 1

13.00-13.10

Inledning höstmötet

13.10-14.10

Bernhard Peters (University of Luxembourg): Challenges and recent developments in thermal processing of granular multiphase flows and their industrial relevance

14.15-15.15

Pass 1 - presentationer

14.15-14.30

Bernhard Mehlig (GU): Machine learning in active-matter research

14.30-14.45

Mohammadreza Tamadondar (Chalmers): Application of multisphere model in DEM simulation of pharmaceutical particles

14.45-15.00

Dragana Arlov (Tetra Pak): Simulation of flow with large particles and predicting if the particles will break using IBOFlow

15.00-15.15

Lisa Prahl Wittberg (KTH): Modelling of blood rheology

15.15-15.45

Fikapaus

15.45-16.45

Pass 2 - presentationer

15.45-16.00

Dario Maggiolo (Chalmers): Solute transport and reaction in porous electrodes at high Schmidt numbers

16.00-16.15

Mats Nigam (Comsol): Simulating multiphase flow with COMSOL

16.15-16.30

Gaetano Sardina (Chalmers): Numerical simulations of water transport in pharmaceutical tablets

16.30-16.45

Niclas Berg (KTH): Red blood cell transport and migration - from micro to macroscale

16.45-17.00

Paus

17.00-18.00

Pass 3 - presentationer

17.00-17.15

Tobias Forslund (Luleå): Transitional flow in proportionally thin porous media

17.15-17.30

Ananda Subramani (Chalmers): Pair-wise interactions of spherical nanoparticles in Stokes flows

17.30-17.45

Martin Leskovec (KTH): Pressure drop in pipes: the effect of large particles

17.45-18.00

Klas Jareteg (FCC): Large scale DEM-CFD simulations of Wurster bed fluid coating

18.00-18.15

Paus

18.15-19.00

Pass 4 - presentationer

- 18.15-18.30 **Clio Saglietti** (AlfaLaval): Concentration dependent Hershel-Bulkley model for simulating settling of baker's yeast in a rotating system
- 18.30-18.45 **Kaj Pettersson** (Chalmers): Methods for quantifying water infiltration of thin monodisperse packed beds to aid in green roof substrate design
- 18.45-19.00 **Ebrahim Ghahramani** (Chalmers): Numerical prediction of small-scale cavities using a hybrid mixture-bubble model

19.00-20.00 Paus/Aktivitet

20.00 Middag

10 okt

- 08.00-09.00 Föreningsårsmöte
- 09.00-10.00 **John Tsamopoulos** (University of Patras): Yield-stress materials: Continued efforts to predict their intriguing behavior

10.00 Seminarium 2

10.00-11.00 Pass 1 – presentationer

- 10.00-10.15 **Luca Brandt** (KTH): Simulations and experiments on particle laden wall bounded turbulence
- 10.15-10.30 **Mehdi Ardekani** (KTH): Heat transfer in particle suspensions
- 10.30-10.45 **Henrik Ström** (Chalmers): Numerical assessments of bed material dispersion in fluidized beds
- 10.45-11.00 **Johan Revstedt** (Lund): Some aspects of pipe flows containing large particles

11.00-11.15 Fikapaus

11.15-12.00 Pass 2 – presentationer

- 11.15-11.30 **Outi Tammisola**, KTH: Simulations of complex fluids flow through a porous medium
- 11.30-11.45 **Fredrik Innings** (Tetra Pak): The effect of large and non-buoyant particles in pipe split: Will the particles follow the flow?
- 11.45-12.00 **Mohsen Karimi** (Chalmers): Interfacial mass transfer in syngas fermentation - A single bubble study
- 12.00-12.05 **Summering mötet**

12.05-13.00 Lunch

13.00-16.00 Industribesök (to be confirmed)

**Anmälan om deltagande skickas senast 1 oktober till:
 Srdjan Sasic, srdjan@chalmers.se**

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Seminariet med kost och logi är avgiftsfritt för SIAMUFs medlemmar och forskningspartner (två per organisation). För övriga faktureras en avgift av 3.000 SEK (moms tillkommer).