

Gemini workshop on Polymer Surfaces and Tribology - From Foundations to Applications

26-27 November 2018

PFI 5000A, Gløshaugen campus, Trondheim, Norway

Monday

- 11:00 – 11:15 Welcome
11:15 – 12:00 Martin Muser, (Saarland University and Forschungszentrum Jülich, DE) *Modeling the tribological interaction of polymer brushes (and gels) with MD at a coarse-grained scale*
12:00 – 13:15 Lunch
13:15 – 14:00 Rok Simic (ETH Zurich, CH), *Using soft brushy hydrogels to mimic lubrication in nature*
14:00 – 14:30 Discussion
14:30 – 15:00 Coffee break
15:00 – 15:45 Jianying He, (NTNU, NO) *Super-low ice adhesion surfaces*

Tuesday

- 9:00 – 9:45 Szymon Bernat, (SINTEF industry, NO) *Seals in Environmentally Acceptable Lubricants*
9:45 - 10:30 Brede Thorkildsen, (Technip FMC, NO) *Polymer seals and lubricants in cold environments – Performance, limitations and mitigations*
10:30 – 11:00 Coffee break
11:00 – 11:30 Discussion
11:30 – 12:15 Andre Schirmeisen, (University of Giessen, DE) *How Nanoscale Frictional Dissipation couples into Polymer Relaxations*
12:15 – 13:00 Lunch
13:00 – 13:45 Hans Fredrik Sandberg, (Seal Engineering, NO) *Advanced polymer seals – Challenges*
13:45 – 14:15 Discussion
14:15 – 14:30 Closing

We aim to have a lot of discussion between participants. We also therefore like to encourage speakers and participants to raise and present discussion points, with a few slides in maybe 5-10 minutes. The topic is very free. It could be, for example, sketching a problem that needs solving, or describing a method that might be useful.

Organisers: Astrid Bjørgum (SINTEF), Astrid de Wijn (NTNU), Nuria Espallargas (NTNU), Sergio Armada (SINTEF).

Gemini centres: <https://www.ntnu.edu/research/gemini-centres>.