

## Session PG

### Rheology of powders and granular material

#### PG1 **Suppression of the threshold of a granular solid by mechanical fluctuations**

Adeline Pons<sup>1</sup>, Jerome Crassous<sup>2</sup>, Eric Clement<sup>1</sup>, and Axelle Amon<sup>2</sup>  
<sup>1</sup>PMMH, Paris, France; <sup>2</sup>Institut de Physique de Rennes, Université Rennes 1, Rennes, France  
Wednesday 13:00 Kronborg (Track 5)

#### PG2 **Power Law Behavior in Rheology of Granular Matter**

Thomas Petersen, Maria B. Larsen, Mia F. Falkeborg, Eleonora M. Becker, and Anne L. Nielsen  
Food Technology, Danish Technological Institute, Aarhus C 8000, Denmark  
Wednesday 13:20 Kronborg (Track 5)

#### PG3 **Frictional rheology of wet granular matter**

Stefan J. Gsthöhl, Lukas Schlumpf, Peter Fischer, and Erich J. Windhab  
Institute of Food, Nutrition and Health, ETH Zurich, Zurich, Switzerland  
Wednesday 13:40 Kronborg (Track 5)

#### PG4 **Steady-State Friction Measurements of Granular Materials Under Pressure Using GFA apparatus**

Marko Bek<sup>1</sup>, Joamin Gonzalez-Gutierrez<sup>2</sup>, and Igor Emri<sup>3</sup>  
<sup>1</sup>Center for Experimental Mechanics, Faculty of Mechanical Engineering, Univeristy of Ljubljana, Ljubljana, Slovenia; <sup>2</sup>Montanuniversität Leoben, Leoben, Austria; <sup>3</sup>Center for Experimental Mechanics, Faculty of Mechanical Engineering, Univeristy of Ljubljana, Ljubljana, Slovenia  
Wednesday 14:00 Kronborg (Track 5)

#### PG5 **Dry granular flows: rheological measurements of the $\mu(I)$ -rheology**

Abdoulaye FALL<sup>1</sup>, Michel BADETTI<sup>2</sup>, Jean-Noël ROUX<sup>3</sup>, and François CHEVOIR<sup>4</sup>  
<sup>1</sup>Laboratoire NAVIER, Champs sur Marne 77420, France; <sup>2</sup>Laboratoire NAVIER, Champs sur Marne 77420, France; <sup>3</sup>Laboratoire NAVIER, Champs sur Marne 77420, France; <sup>4</sup>Laboratoire NAVIER, Champs sur Marne 77420, France  
Wednesday 15:50 Kronborg (Track 5)

#### PG6 **Granular rheology of ellipses**

Martin Trulsson  
Department of Chemistry, Division of Theoretical Chemistry, Lund University, Lund, Sweden  
Wednesday 16:10 Kronborg (Track 5)

#### PG7 **Fluidized bed rheology for granular media**

Schütz Denis<sup>1</sup>, Elke Riedl<sup>2</sup>, Katja I. Hartmann<sup>3</sup>, and Andreas Kottlan<sup>4</sup>  
<sup>1</sup>Rheology, Anton Paar, Graz, Styria 8010, Austria; <sup>2</sup>Anton Paar GmbH, Graz, Austria; <sup>3</sup>Anton Paar Germany GmbH, Ostfildern, Germany; <sup>4</sup>Rheology, Anton Paar, Graz, Styria 8010, Austria  
Wednesday 16:30 Kronborg (Track 5)

#### PG8 **Dissipation potentials for viscoplastic media and granular flows**

Joe D. Goddard  
Mechanical and Aerospace Engineering, University of California, San Diego, La Jolla, CA 92093-0411, United States  
Wednesday 16:50 Kronborg (Track 5)

#### PG9 **How tribo-electric charges modify powder flowability**

Geoffroy Lumay<sup>1</sup>, Filip Francqui<sup>2</sup>, Julien Schockmel<sup>3</sup>, Antonella Rescaglio<sup>4</sup>, and Nicolas Vandewalle<sup>5</sup>  
<sup>1</sup>Physics, University of Liège, Liege, Belgium; <sup>2</sup>GranuTools, Awans, Belgium; <sup>3</sup>University of Liege, Liege, Belgium; <sup>4</sup>University of Liege, Liege, Belgium; <sup>5</sup>CESAM - GRASP, University of Liege, Liege, Belgium  
Wednesday 17:10 Kronborg (Track 5)

#### PG10 **The influence of sweet whey powder addition on the flowability of cheese powders**

Denise Felix da Silva<sup>1</sup>, Cosima Hirschberg<sup>2</sup>, Anni B. Hougaard<sup>3</sup>, and Richard Ipsen<sup>4</sup>  
<sup>1</sup>Food Science, University of Copenhagen, Frederiksberg C 1958, Denmark; <sup>2</sup>Pharmacy, University of Copenhagen, Copenhagen 2100, Denmark; <sup>3</sup>Food Science, University of Copenhagen, Frederiksberg C 1958,

Denmark; <sup>4</sup>Food Science, University of Copenhagen, Copenhagen 1958, Denmark  
Thursday 10:30 Kronborg (Track 5)

**PG11 Rheological properties of concrete: scale up from mortar paste to concrete mix with different PCI admixtures**

Fabio Curto

*R&D, Mapei, milano, mi 20158, Italy*

Thursday 10:50 Kronborg (Track 5)

**PG12 Dense flow around a sphere moving into a cloud of grains**

Antoine Seguin

*Laboratoire FAST - Université Paris Sud, Orsay 91405, France*

Thursday 11:10 Kronborg (Track 5)

**PG13 Study of Rod-like Particles in Fluidized Bed by Numerical and Experimental Investigations**

Vinay Mahajan and Johan T. Padding

*TU Delft, Delft, The Netherlands*

Thursday 11:30 Kronborg (Track 5)

**PG14 Quantitative prediction of the  $\mu(I)$  rheology in 2D and 3D granular column collapse: scaling laws and quasi-static vs. inertial regimes**

Rudy Valette, Stephanie Riber, Elie Hachem, and Romain Castellani

*CEMEF, PSL Research University, MINES Paristech, Sophia Antipolis, France*

Thursday 11:50 Kronborg (Track 5)

**PG15 Flowability of powders in laser sintering applications**

Peter Van Puyvelde

*Department of Chemical Engineering, KU Leuven, Leuven, Belgium*

Thursday 12:10 Kronborg (Track 5)

**PG16 Can we work out Janssen equation parameters and stress dependence of the bulk density at low stress values during a simple uniaxial compression test?**

Dino Ferri

*Polymer Characterization, Versalis spa, Mantova 46100, Italy*

Thursday 15:00 Kronborg (Track 5)

**PG17 An insight into time - dependent consolidation with shear testing approach**

Cosima Hirschberg<sup>1</sup>, Jens Risbo<sup>2</sup>, Changquan C. Sun<sup>3</sup>, and Jukka Rantanen<sup>1</sup>

<sup>1</sup>Department of Pharmacy, University of Copenhagen, Copenhagen, Denmark; <sup>2</sup>Department of Food Sciences, University of Copenhagen, Copenhagen, Denmark; <sup>3</sup>Department of Pharmaceutics, University of Minnesota, Minneapolis, MN, United States

Thursday 15:20 Kronborg (Track 5)