Session Program

15–19 May 2023

8th Pacific Rim Conference on Rheology

Non-Newtonian Fluid Mechanics and Stability

University of British Columbia, Point Grey Campus, Mathematics & Geography Buildings
1984 Mathematics Rd / 1984 West Mall Vancouver, BC V6T 1Z2 CANADA

Wednesday 17 May

14:00

Non-Newtonian Fluid Mechanics and Stability

Session | **Location:** Geography Building, Room 200, 1984 West Mall Vancouver, BC V6T 1Z2 | **Convener:** Shinji Tamano

14:00–14:40

KEYNOTE: COMPUTATIONAL ROD CLIMBING AND DIPPING DEPENDENT UPON NORMAL STRESSES

Speaker
Youngdon Kwon

14:40–15:00

Alignment of wormlike micelles under shear flow: Comparison with polymers

Speaker
Yusuke Koide

15:00–15:20

MOLECULAR DYNAMICS SIMULATION OF THE BEHAVIOR OF THIN LUBRICATION FILM

Speaker
Dongjie Liu

15:20–15:40

Effect of viscosity contrast in structure -rheology relationship in sheared lamellar mesophase in 3-D

Speaker
Arkaprava Pal

15:40

16:10

Non-Newtonian Fluid Mechanics and Stability

Session | **Location:** Geography Building, Room 200, 1984 West Mall Vancouver, BC V6T 1Z2 | **Convener:** Li Xi

16:10–16:50

KEYNOTE: Psychorheology: toward understanding how we experience viscous and viscoelastic materials

Speaker
Dr Jeffrey Martin

16:50–17:10

Modelling drop mobility on lubricated surfaces using a ternary free energy lattice Boltzmann algorithm

Speaker
Dr Sirio Orozco-Fuentes

17:10–17:30

Analysis of pulsatile flows of complex fluids in two-dimensional channels

Speaker
Ms Nayeon Park

17:30–17:50 **Solving the closure problem for dilute polymer solutions**

17:50

Speaker
Prof. Santosh Ansumali

Thursday 18 May

10:30

Non-Newtonian Fluid Mechanics and Stability

Session | **Location:** Geography Building, Room 200, 1984 West Mall Vancouver, BC V6T 1Z2 | **Convener:** Miguel Moyers

10:30–10:50

Rheological effects on purely-elastic flow asymmetries in the cross-slot geometry

Speaker
Arisa Yokokoji

10:50–11:10

FLOW OF A WORMLIKE MICELLAR SOLUTION OVER A LONG CAVITY

Speaker
Mr Fabian Hillebrand

11:10–11:30

EFFECTS OF CHANNEL LENGTH IN EXPANSION PARTS ON FLOW REGIMES OF POLYMER SOLUTION IN CONSECUTIVE ABRUPT CONTRACTION-EXPANSION CHANNELS

Speaker
Prof. Ruri Hidema

11:30–11:50

Instabilities in immiscible multi-layer viscous shear flows in the presence of interfacial slip

Speaker
Anna Katsiavria

11:50–12:10

EFFECT OF ULTRASOUND FIELDS ON ASPHALTENE-LADEN W/O INTERFACES: A MICRORHEOLOGY APPROACH

Speaker
Razie Khalesi Moghaddam

12:10

14:00

Non-Newtonian Fluid Mechanics and Stability

Session | **Location:** Geography Building, Room 200, 1984 West Mall Vancouver, BC V6T 1Z2 | **Convener:** Ian Frigaard

14:00–14:20

GAS PROPAGATION THROUGH POROUS MEDIA FILLED WITH YIELD-STRESS FLUID

Speaker
Ali Pourzahedi

14:20–14:40

Localization of stirring flows: the effect of the yield stress

Speaker
Mohammad Reza Daneshvar Garmroodi

14:40–15:00

Thin-film flow of a Bingham fluid over topography with a temperature dependent rheology

Speaker
Miguel Moyers

15:00–15:20 **Damping of surface waves by a floating viscoplastic plate**

Speaker
Xuemeng Wang

15:20–15:40 **No talk scheduled.**

15:40

Friday 19 May

10:30

Non-Newtonian Fluid Mechanics and Stability

Session | **Location:** Geography Building, Room 100, 1984 West Mall Vancouver, BC V6T 1Z2 | **Convener:** Ruri Hidema

10:30–11:10

KEYNOTE: Effect of local relaxation time on drag reduction in turbulent boundary layer flow of viscoelastic fluids

Speaker
Prof. Shinji Tamano

11:10–11:30

Turbulent drag reduction with flexible and rigid polymer solutions: from low to maximum drag reduction

Speaker
Rodrigo Mitishita

11:30–11:50

Relating elastoinertial turbulence to the phenomenology of polymer drag reduction

Speaker
Li Xi

11:50