












Tomas Bata University in Zlín
Faculty of Technology



NOVEL TRENDS IN RHEOLOGY X PROGRAMME

| July 30, 2025 | |
|---|---|
| Time | Event |
| 8:00 – 8:50 | Registration |
| 8:50 – 9:00 | Welcome |
| FLOW INSTABILITIES (Chairman: Manfred Wilhelm) | |
| 9:00 – 9:30 | DIE LIP BUILDUP AND POLYMER ROTARANCE THEORY Alan Jeffrey Giacomini University of Nevada USA  |
| 9:30 – 10:00 | PROCESSING AIDS IN ELIMINATING MELT FRACTURE Savvas George Hatzikiriakos The University of British Columbia Canada  |
| 10:00 – 10:30 | Coffee break & Exhibition |
| INDUSTRIAL RHEOLOGY AND PROCESSING (Chairman: João Miguel Nóbrega) | |
| 10:30 – 11:00 | HOW CAN SIMULATION HELP IN UNDERSTANDING OF “PECULIARITIES” IN THE EXTRUSION PROCESS Jiri Vlcek Compuplast Software Czech Republic  |
| 11:00 – 11:30 | UNDERSTANDING FLOW INSTABILITIES IN MULTILAYER FILM MANUFACTURING Karen Xiao Macro Engineering & Technology Canada  |
| 11:30 – 12:00 | HIGH-PRESSURE MELT FLOW BEHAVIOUR OF POLYMER COMPOSITES IN EXPERIMENTS, PROCESSING, AND MODELLING Dietmar Auhl Berlin Institute of Technology (TU Berlin) Germany  |
| 12:00 – 13:30 | Lunch & Exhibition |
| RHEOLOGY OF POLYMERIC MATERIALS I (Chairman: Savvas George Hatzikiriakos) | |
| 13:30 – 14:00 | SHEAR-INDUCED CRYSTALLIZATION OF POLYPROPYLENE BLENDS Masayuki Yamaguchi Japan Advanced Institute of Science and Technology Japan  |
| 14:00 – 14:30 | ORIENTATION OF POLYETHYLENE FILMS FOR MODULUS ENHANCEMENT Jaap den Doelder Eindhoven University of Technology Netherlands  |
| 14:30 – 15:00 | Coffee break & Exhibition |
| RHEOLOGY OF POLYMERIC MATERIALS II (Chairman: Roland Kádár) | |
| 15:00 – 15:30 | ELASTICITY OF POLYMER MELTS FILLED WITH GLASS MICROSPHERES Zdeněk Starý Institute of Macromolecular Chemistry CAS Czech Republic  |
| 15:30 – 16:00 | ANALYSIS OF THE FATIGUE BEHAVIOR OF SOLID POLYMERS AND ELASTOMERS VIA FOURIER TRANSFORM OF THE STRESS Manfred Wilhelm Karlsruhe Institute of Technology (KIT) Germany  |
| 18:30 | Conference dinner |

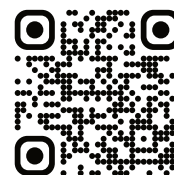
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Conference programme:

<https://noveltrends.ft.utb.cz/programme/>



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| July 31, 2025 | | |
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| Time | Event | |
| | RHEOLOGY OF POLYMERIC MATERIALS III | (Chairman: Alan Jeffrey Giacomin) |
| 8:00 – 8:30 | A FEW RHEOLOGICAL ASPECTS REGARDING MAGNETIC FIELD INDUCED NANOSTRUCTURE ALIGNMENT IN SOFT MATERIALS Roland Kádár Chalmers University of Technology Sweden |  |
| 8:30 – 9:00 | AMAZING EFFECTS OF THE MESOSCOPIC ELASTICITY OF FLUIDS: APPLICATION TO POLYMER MELTS AND BLOOD PLASMA Laurence Noirez Université Paris-Saclay France |  |
| 9:00 – 10:30 | Coffee break & Poster section & Exhibition | |
| | A NOVEL MULTIFUNCTION DIE FOR SIMULTANEOUS MEASUREMENT OF STEADY-STATE VISCOSITY, FIRST NORMAL STRESS DIFFERENCE AND FLOW INSTABILITY OF VISCOELASTIC LIQUIDS VIA CAPILLARY RHEOLOGY Xiaohe Xu Karlsruhe Institute of Technology (KIT) Germany |  |
| | MODIFICATION OF MECHANICAL PROPERTIES OF ISOTACTIC POLYPROPYLENE THROUGH CRYSTALLINE-FORM TRANSFORMATION Yuta Fukuda Japan Advanced Institute of Science and Technology Japan |  |
| | ANOMALOUS EXPANSION OF POLY(LACTIC ACID) WITH FIBRILS UNDER POST-PROCESS ANNEALING Hoang-Giang Dai Vo Japan Advanced Institute of Science and Technology Japan |  |
| | NUMERICAL BIFURCATION ANALYSIS USING DEFLATED CONTINUATION METHOD — CROSS-SLOT FLOW OF FENE-CR VISCOELASTIC FLUID Ladislav Trnka Charles University in Prague Czech Republic |  |
| | RHEOLOGY AS A VALUABLE TOOL FOR PROBING OF CONDUCTIVE STRUCTURES IN POLYETHYLENE COMPOSITES Martina Nevoralová Institute of Macromolecular Chemistry CAS Czech Republic |  |
| | REVERSIBLE POLYMER NETWORKS: SMART MATERIALS INVESTIGATED BY RHEOLOGICAL METHODS Adam Strachota Institute of Macromolecular Chemistry CAS Czech Republic |  |
| | RHEOLOGY AS AN EFFECTIVE TOOL FOR THE COMPREHENSIVE CHARACTERIZATION OF HYDROGEL SYSTEMS Miloslav Pekař Brno University of Technology Czech Republic |  |
| | INTERFACE ROTATIONAL RHEOMETRY – TREATMENT OF DATA MEASURED USING BICONE GEOMETRY Věra Pěnkavová Institute of Chemical Process Fundamentals CAS Czech Republic |  |
| | SQUEEZING FLOW OF LOW-CONCENTRATION COLLAGEN: APPLICATION OF A MODIFIED MATHEMATICAL MODEL AND THE EFFECT OF ELECTRON BEAM IRRADIATION Fadi Alzarzouri Czech Technical University in Prague Czech Republic |  |
| | INTRODUCTION OF NOVEL RHEOLOGICAL TOOLS | (Chairman: Zdeněk Starý) |
| 10:30 – 11:00 | MASTERING THE ROSAND CAPILLARY RHEOMETER: FEATURES, FUNCTIONS, AND FULL POTENTIAL Levente Szántó NETZSCH-Gerätebau GmbH Germany |  |
| 11:00 – 11:30 | OPTIMIZING ELECTRODE MANUFACTURING THROUGH COMBINED RHEOLOGICAL AND IMPEDANCE MEASUREMENTS Lukas Schwab Waters GmbH, TA Instruments Germany |  |
| 11:30 – 12:00 | NOVEL EXTENSIONAL RHEOMETRY TECHNIQUES FOR A ROTATIONAL RHEOMETER PLATFORM Philana Kruse Anton Paar Germany GmbH Germany |  |
| 12:00 – 13:30 | Lunch & Exhibition | |
| | NON-NEWTONIAN FLUID MECHANICS | (Chairman: Jiří Vlček) |
| 13:30 – 14:00 | ENHANCING COUPLED NUMERICAL SIMULATIONS OF VISCOELASTIC FLOWS THROUGH PHYSICAL PROPERTY ANALYSIS João Miguel Nóbrega University of Minho Portugal |  |
| 14:00 – 14:30 | MEASUREMENT AND MODELING OF EXTENSIONAL RHEOLOGY TO UNDERSTAND FLOW INSTABILITIES IN POLYMER PROCESSING Martin Zatloukal Tomas Bata University in Zlín Czech Republic |  |
| 14:30 – 15:00 | Refreshment & End of the conference | |