

Nagoya Rheology Workshop 2024

Nov 5th, 2024, at the TEL Auditorium in EI Bldg., School of Engineering, Nagoya University

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| 13:15-14:00
(Keynote) | Fernando Pereira Duda (Universidade Federal do Rio de Janeiro, Brazil)
On the Coupling Between Mechanical and Chemical Interactions in Solids |
| 14:00-14:30
(Invited) | Atsuko Namiki (Nagoya University, Japan)
Measuring the Rheology of Magma at High Temperature |
| 14:30-14:45 | Break |
| 14:45-15:15
(Invited) | Ruri Hidema (Nagoya University, Japan)
Two-Dimensional Turbulent Flow to Detect the Transition from
Newtonian to Elasto-Inertial Turbulence |
| 15:15-15:45
(Invited) | Yusuke Koide (Nagoya University, Japan)
Elongational Rheology of Micellar Solutions via Coarse-Grained
Molecular Simulations |
| 15:45-16:15
(Invited) | Anatoly Zinchenko (Nagoya University, Japan)
Design of Hydrogel Adsorbents from Biomass and Plastic Waste |
| 16:15-16:30 | Break |
| 16:30-17:00
(Invited) | Atsushi Takano (Nagoya University, Japan)
Melt Rheology of Ring Polybutadienes with High Purity
and High Molar Mass. |
| 17:00-17:30
(Invited) | Takato Ishida (Nagoya University, Japan)
Heterogeneity of Oxidative Aging in Polymer Melts
and Solid Semi-Crystalline Polymers |

Organized by Nagoya Rheology Group
Co-organized by the Research Center for Crystalline Materials Engineering
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About the keynote speaker:



Professor Fernando P. Duda

Professor Titular

Programa de Engenharia Mecânica - COPPE

Universidade Federal do Rio de Janeiro

Fernando P. Duda earned his Ph.D. in Mechanical Engineering from the Federal University of Rio de Janeiro in 1996, specializing in nonlinear continuum mechanics. Following a postdoctoral position at the National Laboratory of Scientific Computation, he joined the university's Mechanical Engineering Program in 1997 and has served as department head three times.

His research focuses on rational continuum physics, exploring the coupling of mechanical deformation with chemical processes such as diffusion, reactions, phase transformations, and fracture. His work has applications in polymer gels, hydrogen-metal systems, pattern formation in mechanochemical systems, and diblock copolymers. Recently, he has also explored the integration of quantum and continuum mechanics.

Dr. Duda has held visiting positions at several international institutions, including the Okinawa Institute of Science and Technology, where he is currently on sabbatical.