InterPore2027

19th Annual Meeting & Conference Courses

10 - 13 May 2027
Conference Courses 09 & 14 May
Rio de Janeiro, *Brazil*

InterPore2027 spans the entire landscape of porous media science, from pore-scale imaging and experimental methods to reservoir and aquifer simulations and numerical modeling. Discover cutting-edge developments in the energy transition, smart materials, and environmental science across a wide range of applications - including carbon storage, hydrogen recovery, soil health, water resources, and smart membranes. The conference serves as a premier hub for building strategic collaborations between industrial leaders and academic partners. Specialized short courses and technical site visits will be available immediately preceding and following the conference.

Topics and Applications

- Mass, Heat, Reactive Transport, and Geomechanical Coupling
- Multiphysics, Multiscale, Multiphase, and Multicomponent Flow
- Fractured and karstified Media and Geological Complexity
- Reservoir Engineering, CO2 Sequestration, and Geothermal Energy
- Energy Storage and Hydrogen Technology
- Colloids, Nanoparticles, and Targeted Transport
- Soil Mechanics, Contamination, and Remediation
- Swelling and Shrinking Porous Materials
- Wave Propagation, Seismic and Monitoring Techniques
- Biotechnology, Biofilms, and Nature-Based Solutions
- Thin, Nanoscale, and 2D Porous Materials
- Next-Generation Fuel Cells and Batteries
- Sustainable Food, Wood, and Composites
- Advanced Fibers and Smart Textiles
- Filters, Foams, Membranes, and Circular Materials
- Ceramics and Low-Carbon Construction Materials
- Mathematical and Computational Modeling

Program Committee

Chair: Lynn G. Schreyer, Washington State University, USA

Local Organizing Committee

Chair: Marcio Murad - LNCC, Brazil
Co-Chair: Eduardo Abreu, Unicamp-IMECC, Brazil; Chair of the Brazil InterPore Chapter

Focus Theme: Imaging of Porous Materials

Brazil's path to a low-carbon future is anchored in the study of porous media and the advanced imaging of porous materials, bridging industrial innovation with environmental preservation. This theme highlights the critical role of imaging in understanding fluid dynamics within the Amazon basin and across all regions of Brazil, focusing on soil health, nature-based agriculture, and the protection of groundwater aquifers essential for climate stability. Simultaneously, we examine the subsurface engineering required for Brazil's sustainable actions and energy transition, specifically Carbon Capture and Storage (CCS) in pre-salt reservoirs and green hydrogen storage in saline formations. By integrating advanced modeling with sustainable land management and "net-zero" goals, this session showcases how Brazil balances large-scale energy infrastructure with hydrological conservation through cutting-edge imaging technologies.

Focus Theme Speaker:

- **Harry Westfahl Jr.** Brazilian Synchrotron Light Laboratory (LNLS), *Brazil*

Plenary Speakers

- **Marcio da Silveira Carvalho** Pontifícia Universidade do Rio de Janeiro, *Brazil*
- **Tito José Bonagamba** University of São Paulo (USP), *Brazil*
- **Malgorzata Peszynska** Oregon State University, *USA*
- **Yoel Forterre** CNRS, *France*

Invited Speakers

- **Inga Berre** University of Bergen, *Norway*
- **Nathaly Lopes Archilha** Brazilian Center for Research in Energy and Materials (CNPEM) – Brazilian Synchrotron Light Source, *Brazil*
- **Suzanne Hangx** Utrecht University, *The Netherlands*
- **Bill Ristenpart** UC Davis, *USA*
- **Daniel Lester** RMIT University, *Australia*
- **Dachamir Hotza** Federal University of Santa Catarina, *Brazil*
- **Ryan Armstrong** University of New South Wales, *Australia*
- **Henk Huinink** Eindhoven University of Technology, *The Netherlands*

The Perfect Venue

Rio de Janeiro offers a breathtaking fusion of natural beauty and urban sophistication, providing a dynamic setting that reflects Brazil's commitment to sustainability and the global energy transition. Renowned for its iconic landmarks, such as Christ the Redeemer and Sugarloaf Mountain, the "Marvelous City" fosters an inspiring environment for porous media research, with a sharp focus on geoscience, energy resources, and carbon management. As a leading research hub, home to several prestigious universities and the innovative Porto Maravilha technological district, Rio de Janeiro bridges the gap between academic excellence and industrial innovation. The conference venue, Windsor Barra Hotel, is ideally located facing the iconic Barra da Tijuca Beach, offering both accessibility and relative proximity to the world-famous Copacabana and Ipanema beaches. This unique setting, where rich environmental heritage meets a vibrant and forward-looking technological ecosystem, fosters high-level scientific exchange while providing an unforgettable cultural experience in a city at the forefront of the global green economy.


Sugarloaf Mountain
Photo: poswiecie / Pixabay


Christ the Redeemer
Photo: andriikolotov / Pixabay


Museum of Tomorrow
Photo: luizcezar / Pixabay

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