



Joint European Thermodynamics Conference

June 14–18, 2021
Prague, Czech Republic
www.jetc2021.eu

Date & Venue

June 14–18, 2021
Czech Technical University
Faculty of Nuclear Sciences and Physical Engineering
Břehová 78/7
115 19 Prague 1
Czech Republic

Aims & Scope

Methods and concepts of equilibrium and non-equilibrium thermodynamics appear in various areas of physics, engineering, sciences and humanities. This wide range of applicability is a source of inspiration, but also a cause of separation and divergence. The aim of this conference is to improve the interaction and pull together the various application areas and theoretical branches in order to develop a more powerful and more applicable discipline. In particular, we would like to attract experts from areas close to thermodynamics like engineering, applied mathematics, numerics and machine learning.

In Mini-Symposia various specific thermodynamic related topics are introduced by experts and discussed with the audience. The presentations of the participants are organized in Sessions, according to their topics. The interaction is enhanced also by poster sessions along the coffee breaks.

The JETC conferences were established in 1989 under the name Journées Européennes de Thermodynamique Contemporaine by ECAST, the European Center for Advanced Studies in Thermodynamics.

As it was desirable to enlarge the scope of the conferences and to unite thermodynamics across Europe, the conferences changed name in 2007 to Joint European Thermodynamics Conference while the acronym remained the same. This time it will be for the first time in a hybrid format bringing together participants in Prague and online participants.

Deadlines

- Registration and abstract submission opens: **November 2, 2020**
- Deadline for abstract submission: **January 18, 2021**
- Prigogine prize application deadline: **February 15, 2021**
- Deadline for abstract review: **March 15, 2021**
- Early-bird registration deadline: **April 1, 2021**

Plenary speakers

- **Martin Z. Bazant** (MIT) – Electrochemical nonequilibrium thermodynamics
- **Udo Seifert** (Stuttgart) – Stochastic thermodynamics and the thermodynamic uncertainty relation with applications
- **Hugo Touchette** (Stellenbosch) – Large deviations and statistical physics

Mini-symposia topics

- Stochastic processes and thermodynamics. Large deviations vs. linear response theory
- Foundation, theories, and philosophy of thermodynamics
- Definition and origin of entropy
- Numerics for thermodynamics and thermodynamics for numerics
- Thermodynamics on small scales
- Where are the limits of thermodynamics in nonequilibrium situations?
- Biothermodynamics
- Machine learning and thermodynamics

Session proposals

- Thermodynamics and multiscale dynamics
- How to teach thermodynamics
- Thermodynamics and geometry
- Thermodynamics and quantum physics
- Thermodynamics and relativity
- Rigorous mathematics and thermodynamics
- Thermodynamics of diffusion and porous media
- Contribution of thermodynamics to efficiency and optimization
- Computation of thermodynamic properties
- Driven (externally and internally) systems, boundary conditions and interfaces (spatial coupling of models)
- Thermodynamics in social sciences (e.g. in economy)
- Solid mechanics and thermodynamics
- Engineering thermodynamics
- Heat transfer and superfluids
- Experimental thermodynamics
- Kinetic theory and thermodynamics
- Electrochemistry

Please note that only sessions with sufficient number of submitted abstracts will open.

Ilya Prigogine Prize in Thermodynamics 2021

The Ilya Prigogine Prize is endowed with an amount of 2000 Euros in addition to a diploma. The prize honours Ph.D. dissertations/theses accomplished by young researchers, defended or published between January 2019 and January 2021. All aspects and branches of thermodynamics are considered, from applied and experimental to the most theoretical.

For more details please visit the conference website.

Contact

Conference Secretariat
(registration, abstract submission, general questions)
AMCA, spol. s r. o.
Academic and Medical Conference Agency
Vyšehradská 320/49
128 00 Prague 2
Czech Republic

t: +420 731 496 062
e: info@jetc2021.eu
w: www.amca.cz

Main Organizers
Václav Klika & Michal Pavelka
organizers@jetc2021.eu