

IUTAM Symposium Creep in Structures

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Magdeburg
18th-22th September
2023



Welcome to the IUTAM Symposium Creep in Structures which will be organized **infrom 18th to 22th September 2023** at the **Otto-von-Guericke-University** in Magdeburg.

Creep mechanics deals with theoretical and experimental approaches to the analysis of time-dependent changes of stress and strain states in engineering components up to the critical stage of rupture. Since 1960 there is a tradition to organize IUTAM symposium "Creep in Structures" every ten years: 1960 - Stanford, 1970 - Gothenburg, 1980 - Leicester, 1990 - Cracow, and 2000 - Nagoya. The IUTAM symposium "Advanced Materials Modelling for Structures", held in Paris in 2012, was continuation and a new version of "Creep in Structures" with the focus on new materials and on generalized and unified models of inelastic deformation.

During the last decade, many advances and new results in the field of creep mechanics were established. Examples include: interlinks of mechanics with materials science in multi-scale analysis of deformation and damage mechanisms over a wide range of stresses and temperature; development and analysis of new alloys for (ultra)high-temperature applications; formulation and calibration of advanced constitutive models of inelastic behavior under transient loading and temperature conditions; development of efficient procedures and machine learning techniques for identification of material parameters in advanced constitutive laws; introduction of gradient-enhanced and non-local theories to account for damage and fracture processes; and application of new experimental methods, such as digital image correlation, for the analysis of inelastic deformation under multi-axial stress state.

To discuss these recent developments it is planned to continue the well-established IUTAM series and to organize the new symposium "Creep in Structures" in 2023.

Conference venue

Building 44, Lecture Hall 6, Zschokkestraße 32, 3104 Magdeburg

> <https://goo.gl/maps/nPgfiK3xnMzhMAHp6> (<https://goo.gl/maps/nPgfiK3xnMzhMAHp6>)

Conerence programme

> Download pdf (https://www.iutam-symposium.ovgu.de/iutamsymposium_media/cis_IUTAM+Programme-download-1.pdf)

The symposium is sponsored by

Conference info

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Contact

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