

Indo-German conference on  
**Computational Mathematics (IGCM-2023)**  
Challenges and opportunities towards scientific computing and machine learning

March 27-30, 2023, Department of Computational and Data Sciences, IISc, Bangalore, India

## OBJECTIVE

This Indo-German conference aims to provide an interdisciplinary platform for researchers to present and discuss the most recent innovations, trends, and challenges in the frontier areas of computational mathematics. IGCM aims to foster interactions among the Scientific Computing and Machine Learning research communities and to provide a platform to present and discuss challenges and opportunities in combining process and data-driven modeling. The conference topics include but are not limited to the numerical analysis of partial differential equations (PDEs) & stochastic PDEs, high-dimensional problems, efficient and robust numerical schemes for solving complex problems, optimal control and inverse problems, scalable parallel algorithms, and hardware-aware scientific computing.

## FOCUSED TOPICS

Numerics of PDE's

Scientific machine learning

High performance computing

PDE constrained optimization

Data & process-driven modelling

Heterogeneous Computing

Uncertainty quantification

Physics-informed neural networks

Hybrid parallel algorithms

## CONFERENCE ORGANISERS

**Prof. Sashikumaar Ganesan**  
CDS, IISc, Bangalore

**Prof. Peter Bastian**  
IWR, Uni Heidelberg, Germany

## SPEAKERS

**Prof. Robert Strzodka**  
University of Heidelberg, Germany

**Prof. Oriol Vendrell**  
University of Heidelberg, Germany

**Prof. Vincent Heuveline**  
University of Heidelberg, Germany

**Prof. Guido Kanschat**  
IWR, University of Heidelberg, Germany

**Prof. Jakob Zech**  
IWR, University of Heidelberg, Germany

**Prof. Dominik Göddeke**  
University of Stuttgart, Germany

**Prof. Alexander Heinlein**  
TU Delft, Netherlands

**Prof. Vadym Aizinger**  
University of Bayreuth, Germany

**Dr. Chiranjib Sur**  
Shell, R&D-India

**Dr. Suranjan Sarkar**  
Shell, R&D-India

**Dr. Subodh Madhav Joshi**  
Shell, R&D-India

**Prof. Praveen Chandrashekhar**  
TIFR CAM

**Prof. Nagaiah Chamakuri**  
IISER TVM

**Speakers from Intel & NVIDIA**

## CALL FOR PARTICIPATION

Interested researchers are encouraged to submit one page abstract for oral or poster presentation. Only accepted abstracts will be considered for presentation.

## REGISTRATION DETAILS



### Registration Fee

Indian participants: 4000 INR  
Indian students: 2000 INR  
Others: 100 Euros

### Late Registration

Indian participants: 6000 INR  
Others: 150 Euros

## IMPORTANT DATES

Last date for abstract submission: 30.1.2023

Intimation of accepted abstracts: 04.2.2023

Last date for early registration: 21.2.2023

Beginning of conference: 27.3.2023

## CONTACT

Convener,  
IGCM-2023  
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Data Sciences,  
IISc Bangalore  
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