

## ISOGEOMETRIC ANALYSIS

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### ABSTRACT

Isogeometric Analysis (IGA) has been originally introduced and developed by T.J.R. Hughes et al. in 2005, to generalize and improve finite element analysis in the area of geometry modeling and representation. However, in the course of IGA development, it was found that isogeometric methods not only improve the geometry modeling within analysis, but also appear to be preferable to standard finite elements in many applications on the basis of per-degree-of-freedom accuracy. Non-Uniform Rational B-Splines (NURBS) were used as a first basis function technology within IGA; nowadays, a well-established mathematical theory and successful applications to solid, fluid, and multiphysics problems render NURBS or, more in general, spline functions a genuine analysis technology, paving the way for the application of IGA to solve a number of problems of academic and industrial interest. The purpose of this symposium is to gather experts in Computational Mechanics with interest in the field of IGA with the aim of contributing to further advance its state of the art.