MATHEMATICS OF IGA

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ABSTRACT

This session deals with recent questions of mathematical theory arising in IGA. The topics range from theoretical aspects of geometric modelling to approximation theory and the numerical analysis of isogeometric discretization and solvers. All talks that consider mathematical aspects of problems in IGA or discuss novel mathematical theory are welcome. Examples of topics of theoretical interest include (but are not limited to):

- approximation properties

- error and stability analysis

- smooth splines on unstructured meshes

- compatible splines

- locally refinable spline spaces and adaptivity

- preconditioners and multilevel solvers

- low-rank approximation and tensor methods