

Efficient Quadrature in Isogeometric Analysis

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ABSTRACT

In this talk we present recent results on the assembly of the linear system arising in the Galerkin isogeometric method.

The main interest are the cases where the degree of the approximation is raised, so that the computational cost in assembling become challenging.

Key ingredients are the application of weighted quadrature and sum-factorization. These modifications demand for a change of paradigm the existing fem-based codes. Also new results on the application of Generalized Gaussian quadrature will be presented.

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