Johannes Kepler Universität Linz Institut für Numerische Mathematik

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Talk announcement

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Adaptivity with isogeometric patches

A drawback of standard Isogeometric Analysis (IgA) is its limited possibility to localize refinement in 2D or 3D domains. In this talk, we propose a new idea to decompose the computational domain into multiple geometrically conforming isogeometric elements that have usually nonconforming but nested edge discretizations. The elements are continuously coupled but have a local Tensor product spline structure, which enables us to isotropically refine our mesh. Further we present some first results by applying adaptive methods with these isogeometric elements.