Tensor-valued FE-spaces on exactly represented surfaces

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In recent years some growing interest has been seen in finite element spaces on surfaces. In particular, the construction of vector- or tensor-valued finite element spaces on manifolds are still a non-trivial and much-discussed problem. In this talk a new direct approach to discretize tensor-valued FE-spaces on isogeometrically represented manifolds is suggested and supported with various numerical tests and simulations.

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