

NUMERICAL ANALYSIS AND SCIENTIFIC COMPUTING
SEMINAR

*Geometrically unfitted finite elements for PDEs posed on
surfaces and in the bulk*

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Abstract: Geometrically unfitted finite element methods are known in the literature under different names, e.g., XFEM, cut FEM, trace FEM, etc. These discretizations are mainly developed for efficient numerical treatment of differential equations posed in domains of complex geometry and/or having propagating interfaces. Unlike immersed boundary methods these discretizations typically treat interfaces in a ‘sharp’ way, but avoid fitting the mesh. The talk will discuss some recent analysis and developments of unfitted FEM.

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Mathematics and Science Center: W306

MATHEMATICS AND COMPUTER SCIENCE
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