

A minisymposium on

**Higher order FE methods  
for challenging problems in science and engineering**

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High order discretization methods offer higher convergence rates and potentially superior quality of numerical solutions. The benefits, however, are conditional on resolving several challenging issues, to mention a few:

- discrete stability,
- complexity of data structures,
- construction of high order shape functions,
- complexity of postprocessing,
- a-posteriori error estimation and adaptivity.

We are seeking the participation of colleagues who work on high order Finite Element methods in context of difficult applications. The discretization methodologies may include standard conforming methods as well as DG, hybrid DG, least squares and DPG methods. We are interested in both linear and nonlinear applications with an emphasis on multiphysics problems requiring couplings of different elements.