

S01 Advanced discretization methods

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Discretization methods as a key component of computational engineering enable modeling and a better understanding of physical phenomena and processes. The session will be devoted to the development and applications of advanced computational methods that are used in science and technology.

In particular, we wish to invite papers presenting the newest developments in Finite Element Method, Meshfree Techniques, Discontinuous Petrov Galerkin Methodology, Virtual and Boundary Element Methods, Finite Volume Method, Isogeometric Analysis, Generalized FEM. Theoretical progress in developing algorithms, adaptivity and error estimation, higher order approximation, convergence and discrete stability studies, multiscale discretization, mixed approximations as well as applications in solid and fluid mechanics are of interest.