Minisymposium Title

Recent Advances in Meshless (Meshfree) Methods

Description

   The meshless (meshfree) methods are well-known of its high convergence behavior and flexibility of constructing spatial approximation without the need of element connectivity (mesh). Many well-known meshless (meshfree) methods have been proposed in the past decades, such as the Trefftz method, the reproducing kernel particle method, the generalized finite difference method, the strong form collocation methods, etc. These methods are simple, easy-to-program and flexible numerical tools. Although considerable advances have been made in different newly-proposed meshless (meshfree) methods, there are still many challenges both in the mathematical analysis and in the practical implementation of these methods.

   The objective of this mini-symposium is to bring together researchers to discuss the recent advances in meshless (meshfree) methods and to promote further cooperation on the corresponding subjects. Researchers in mathematics and engineering background are cordially welcomed to contribute their work to this mini-symposium.

   We also welcome the topics regarding the newly developed meshless-like methods, such as isogeometric analysis, peridynamics method, etc. They can be categorized as hybrid methods that possess blending characteristics of mesh-meshless or particle-meshless methods.

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