

Multiscale methods for wave propagation problems

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Short Description

Wave propagation plays a crucial role in many important applications, such as electromagnetics and geophysics. High-frequency waves and heterogeneous media are the major challenges in the construction of efficient and accurate numerical methods in such applications. In addition, non-ellipticity of the involved partial differential equations and low-regularity of the corresponding solutions require the development of novel tools for the analysis of the numerical methods.

Topics covered in this minisymposium focus on high-order and special finite element or boundary elements methods for wave problems, and corresponding solution techniques. The proposed minisymposium brings together experts from numerical mathematics to discuss recent developments in this research field and to exchange ideas.