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NUMERICAL ASPECTS OF TRANSPORT, BOLTZMANN AND KINETIC EQUATIONS TRACK NUMBER 600

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Abstract

The goal of the minisymposium is to present recent advances in the development of numerical schemes for the solution of transport dominated problems, with particular emphasis on Boltzmann and kinetic problems, and their applications to optics, nuclear engineering and plasma physics. Key challenges in the numerical solution of these equations include high-dimensionality, non-smooth solutions, hyperbolicity, multi-scale effects, application to the physics and rigorous quantification of uncertainties. In this minisymposium we gather experts from various fields to report on state-of-the-art techniques to tackle these challenges, as well as to identify new research directions, and stimulate collaboration.