Uncertainty quantification in boundary, initial, engineering, and other problems

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Abstract:

Advances in mathematical and computational modeling have provided analysts with strong tools for addressing problems where input data are not known exactly or exhibit irreducible variability. Since such uncertainty is almost omnipresent in mathematical models of real-world phenomena, the field of uncertainty quantification has gained growing attention in recent decades.

The goal of this minisymposium is to bring together researchers dealing with uncertainty quantification (UQ) in boundary and initial value problems, or in other models used in engineering and applied mathematics. The minisymposium is not limited to stochastic methods. Contributions based on other approaches to UQ such as evidence and fuzzy set theory or interval computation, for instance, are also welcome.