

Minisymposium on Adaptive and Iterative Decomposition methods for Differential Equations: Stability and Application

Organizers:

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Abstract.

In the past years, decomposition methods have become an important role for solving time-dependent partial differential equations. Goals of the numerical methods include to achieve high accuracy, efficiency and effectiveness in solving various kinds of differential equation problems in applications. Adaptive and iterative strategies are frequently incorporated. Decomposition schemes in time and space are designed.

Since, after the pioneer work of classical splitting methods such as the ADI and exponential splitting formulae, many new methods have been proposed and used, it is the time to discuss the literature of decomposition methods. Therefore, the aims of this special session are to bring together researchers in the field, to highlight the recent developments both in theory and practice, to exchange research ideas, and to promote further collaborations.

We wish to call papers for this special session that will present the latest trends and research results including, but not limited to:

- (1) splitting for higher efficiency and accuracy
- (2) splitting for non-linear differential equations and dynamical systems
- (3) stability and convergence of splitting methods
- (4) iterative and adaptive splitting methods
- (5) splitting methods in parallel and quantum computations
- (6) apriori and aposterioir error-estimates

We would like to welcome all potential speakers to our special session in Arlington! Let us discuss further developments in the fields and promote idea exchanges and research collaborations in the cutting-edge study!

Announcement can be found on website:

http://www3.baylor.edu/Qin_Sheng/minisymposium7.html

Arlington is part of the Greater Dallas Area in Texas, USA. Dallas is also close to other major Texas cities including Houston, Austin and San Antonio. This huge city has been expanding rapidly, and is well-known for its advanced scientific research, high tech and financial industries, shopping, entertainment and sightseeing. Dallas-Fort Worth International Airport (DFW) is also one of the largest in the world. For more detailed local information, please see URL of the Dallas Tourist Information Center (link can be found on the above website).

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