Seminar

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Tuesday, March, 22, 2016 HH-3017, 1:00p.m.

A Moving Mesh Method for Numerical Weather Prediction

Abstract:

I will talk about a moving mesh method based upon ideas from optimal transport theory which is suited to solving PDE problems arising in many applications, but the main focus here will be meteorology. This method can be used to better resolve evolving small scale features in the flow, such as emerging weather fronts. I will also present results that show the meshes produced using this method naturally align to the solution structure, thus resolving the flow more efficiently and accurately.