

***hp*-adaptive discontinuous Galerkin methods for the shallow water equations**

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We continue our investigation of *hp* discontinuous Galerkin methods for the two-dimensional shallow water equations. Specifically in this talk, we focus on the preliminary development and implementation of a computationally efficient and robust *hp*-adaptive strategy. An adaptive method is outlined and numerical results are presented to demonstrate the effectiveness of the approach. It is shown that the use of dynamic *p*-adaptive grids offers significant savings in CPU time relative to the use of static grids of a fixed order *p* that use either local *h*-refinement or global *p*-refinement to adequately resolve the solution.