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Yekaterina Epshteyn* (epshteyn@math.utah.edu), Department of Mathematics, University of Utah, Salt Lake City, UT 84112. *Central-upwind schemes for shallow water models.*

In this talk, we will present central-upwind schemes for shallow water models. Shallow water models are widely used in many scientific and engineering applications related to modeling of water flows in rivers, lakes and coastal areas. We will show that the designed central-upwind schemes deliver high-resolution, can handle complicated geometry, and satisfy necessary stability conditions. We will illustrate the performance of the developed methods on a number of challenging numerical tests. Current and future research will be discussed as well. (Received August 23, 2020)