

# High-order accurate schemes for shallow water equations

Ting-An Chen, Chun-Hao Teng\*  
Department of Applied Mathematics  
National Chung-Hsing University

## Abstract

In this talk, we will present high-order accurate schemes for solving shallow water equations on spherical surfaces. The schemes are constructed based on the equations in a skew symmetric form, such that they are stable in a  $L_2$  energy sense at the semidiscrete level. Numerical experiments have been conducted to verify the expected performances of the schemes. In addition, we also have used real data to conduct computations, and we have observed agreements between simulation fields and real data.

---

\*Presenting author