

Lagrange hybridized discontinuous Galerkin method for fractional Navier-Stokes equations

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In this talk, a particular Lagrange hybridized discontinuous Galerkin method is applied to time-dependent incompressible fractional Navier-Stokes equations. The stability of the fully scheme is proved, and error estimates for the L^2 -norm both in velocity and pressure are analysed in detail. In addition, existence and uniqueness of weak solution are also considered. Finally, the effectiveness of the proposed method is shown by some numerical examples.