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Guosheng Fu*, guosheng_fu@brown.edu. *An explicit divergence-free DG method for incompressible flow.* Preliminary report.

We present an explicit divergence-free DG method for incompressible flow with a velocity-only formulation. Efficient implementation of the scheme will be discussed. We also extension the method to the incompressible MHD equations that yield an exactly divergence free velocity and magnetic field. (Received August 16, 2018)