HIGH-ORDER DISCONTINUOUS GALERKIN TRANSPORT SCHEME AND THE CUBED SPHERE

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ABSTRACT

The discontinuous Galerkin method have good advantages in atmospheric modeling because the DG method is both globally and locally conservative. To support local grid refinement we apply high-order DG method. On the other hand, when the polynomial order gets higher oscillations occur. To control them we apply the filter. Here we introduce two different central projection methods to make the Cubed Sphere which is free from singularities.

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