

Development of a high-resolution central code and its application to the model integration activity

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We present our newly developed numerical code, which is based on semi-discrete central schemes and high order weighted essentially non-oscillatory (WENO) data reconstruction. The code is applied to HD, MHD, and multi-fluid equation systems. A good performance of the code is verified by comparing our numerical results with those by high-resolution upwind schemes. We show that the code is designed applicable to a variety of simulation codes for solar-terrestrial and planetary (STP) sciences.