

Application of Lagrangian completely conservative implicit operator-difference scheme for the simulation of magnetorotational processes in astrophysics

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We represent results of application of Lagrangian completely conservative implicit operator-difference scheme on a triangular grid of variable structure for the simulation of magnetorotational processes in astrophysics. The implicitness of the scheme allows to overcome Courant-Fridrichs-Levi time-step limitation what is rather strong for the problem of core-collapse problem simulation due to the huge sound speed. Complete conservativity of the scheme allows to fulfill conservation laws in difference form exactly.