



Coronal mass ejection initiation with different MHD codes

V. Olshevsky (1,2), A.L. Restante (1), and G. Lapenta (1)

(1) KU Leuven, Center for Plasma Astrophysics, Department of Mathematics, Leuven, Belgium (sya@mao.kiev.ua), (2) Main Astronomical Observatory, 27 Akademika Zabolotnoho St. 03680 Kyiv, Ukraine

In the framework of SWIFF project benchmark activity we studied the CME initiation using two different MHD codes: MPI-AMRVAC and FLIP MHD. The initial state for the simulations was derived from previous simulations of other authors. It represents a single twisted magnetic loop embedded into potential background field. We compare the results of simulations with various parameters, such as grid resolution, electric conductivity, etc. We estimate the code performance, and analyse the effectiveness of both tools for such type of simulations.