MEAN FLOW (KINEMATIC)
VS DYNAMICAL DYNAMOS

J.–F. Pinton

We consider the dynamo generated in the Taylor–Green flow, which is known to share some similarities with experimental voin Karman flows in a sphere or a cylinder. We compare the threshold obtained in a Direct Numerical Simulation (flow and magnetic induction) to the kinematic approach of the problem where the induction equation is solved with a fixed velocity field equal to the time average of the Taylor–Green flow.