# Evaluation of nonlinear regimes of hydrodynamic instabilities in the inertial confinement fusion target in the presence of magnetic field

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*The paper considers magneto-inertial fusion (MIF) or* inertial confinement fusion with magnetized target *implosion. The obtained results allow creating new high-density plasma targets for their application in both the materials science experiments and prominent fields of the power industry. Richtmyer—Meshkov* instability *is investigated for MIF systems. These systems can be used for material testing as well as for advanced energetics researches. The authors prove that it is possible to suppress the Richtmyer—Meshkov instability by a magnetic field. The paper describes an impact of the magnetic field on a single plasma jet formed at the ICF* laser *target compression*.

***Keywords:*** *hydrodynamic* instabilities, *Navier — Stokes equations, magneto-inertial fusion, shock wave*, *magnetic field.*

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