

Status and Perspectives of INFN Simulation Tools: from Beam-Plasma Interaction to a Self-Consistent Plasma-Target Modelling

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Applied numerical tools

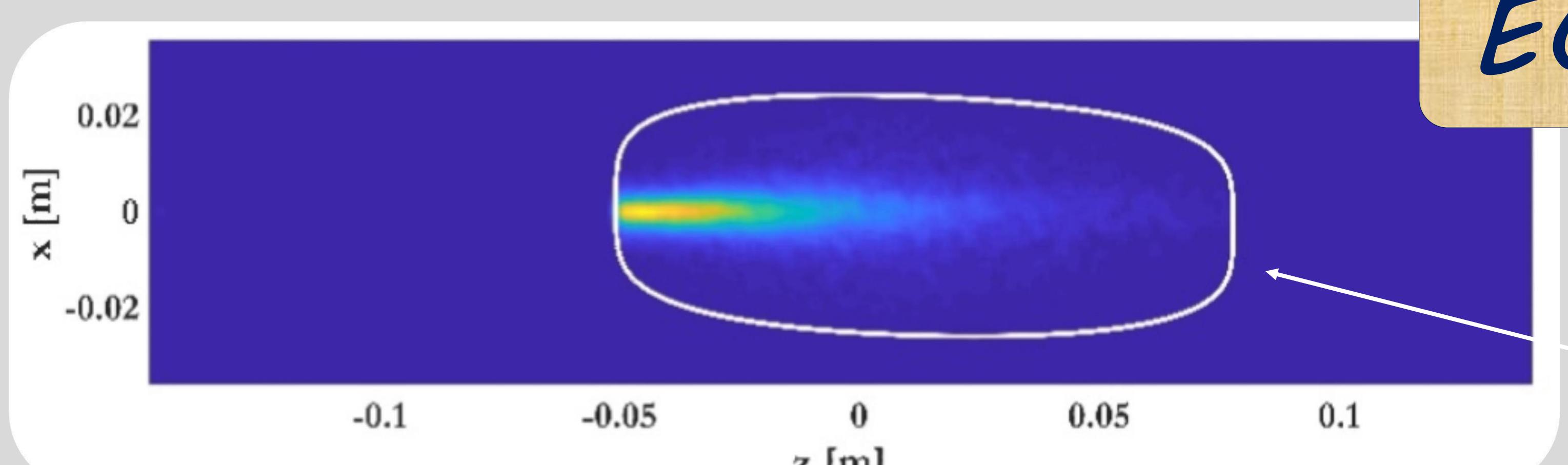
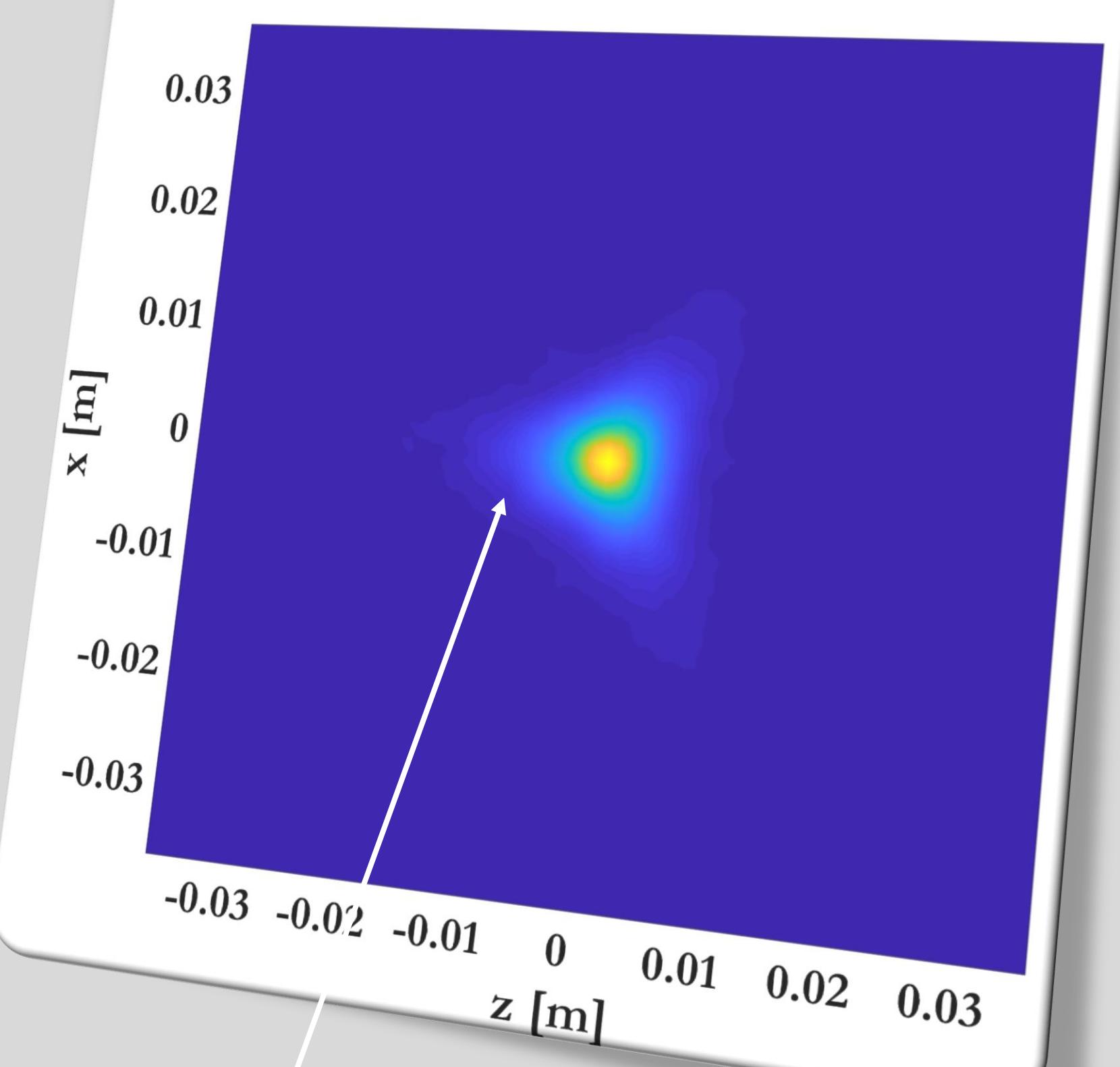
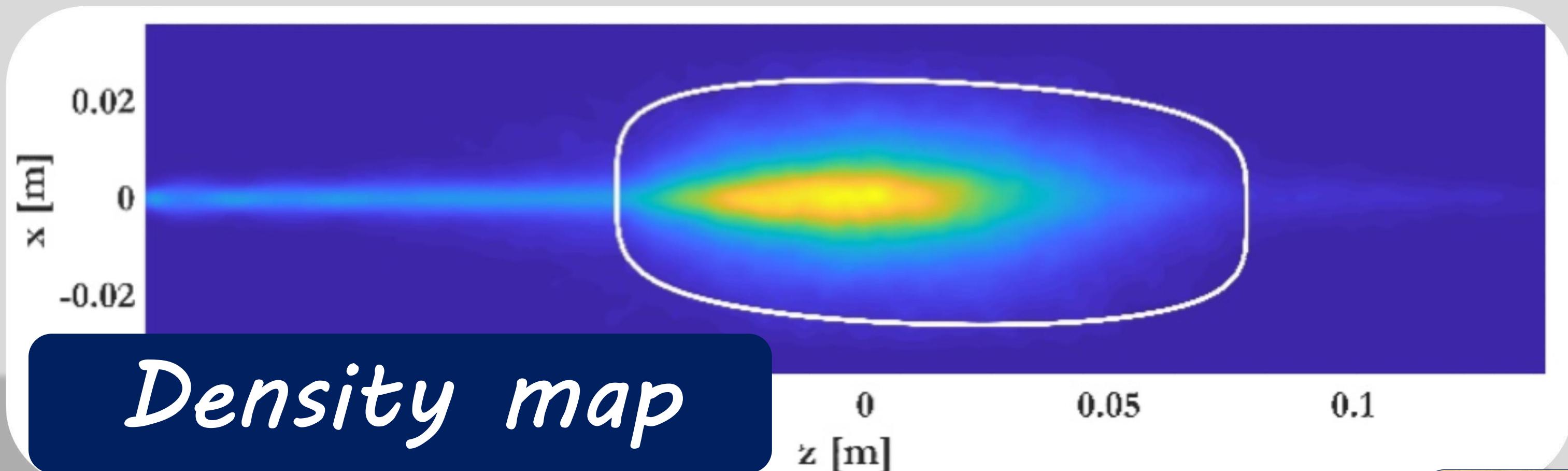
Langevin formalism for Coulomb collisions

3D magnetic map

3D dielectric tensor

Relativistic Boris method

Beam-Plasma interaction and ion dynamics



Wave-Plasma interaction and electrons dynamics

Evidence of plasmoid/halo structure

Self-consistent electromagnetic calculations

