

Abstract Submitted  
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**Proof-of-principle of the ion deflectometry for B-field measurements in Z-pinch plasmas.**<sup>1</sup> VOJTECH MUNZAR, DANIEL KLIR, JAKUB CIKHARDT, BALZHIMA CIKHARDTOVA, JOSEF KRAVARIK, PAVEL KUBES, KAREL REZAC, Czech Technical University in Prague, Czech Republic, ALEXANDER SHISHLOV, VLADIMIR KOKSHENEV, RUSTAM CHERDIZOV, NIKOLAI RATAKHIN, Institute of High Current Electronics SB RAS, Tomsk, Russia, KAREL TUREK, JOSEF KRASA, Academy of Sciences of Czech Republic, Prague, Czech Republic — We have successfully tested the feasibility of the ion deflectometry in deuterium gas-puff MA Z-pinch experiments on GIT-12. In a unique configuration, we employ ion beams, accelerated during a Z-pinch current disruption, for ion imaging technique as a diagnostic tool for B-field measurements in Z-pinch plasma. Pinhole-camera detectors obtain experimental images of the deflected ion beams. Simulations of ion trajectories deflected in B-fields are used to analyze experimental data and show capabilities of this diagnostic method. For the first time, we can study magnetic fields on-axis of the Z-pinch and to estimate a Z-pinch current.

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