

Abstract Submitted  
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**Stochastization as a cause of fast reconnection of neoclassical tearing modes** OLGIERD DUMBRAJS, Helsinki University of Technology, Helsinki, Finland, and Institute of Solid State Physics, Riga, Latvia, VALENTIN IGOCHINE, MPI Institute for Plasma Physics, Garching, Germany, DANA CONSTANTINESCU, Department of Applied Mathematics, University of Craiova, Romania, HARTMUT ZOHN, MPI for Plasma Physics, Garching, Germany, HELSINKI UNIVERSITY OF TECHNOLOGY, HELSINKI, FINLAND COLLABORATION, INSTITUTE OF SOLID STATE PHYSICS, RIGA, LATVIA COLLABORATION, UNIVERSITY OF CRAIOVA, ROMANIA COLLABORATION, MPI FOR PLASMA PHYSICS, GARCHING, GERMANY COLLABORATION — We analyze the role of stochastization of magnetic field lines in fast reconnection phenomena occurring in a magnetized fusion plasma. We use a mapping technique for the field lines of a toroidally confined plasma where the perturbation parameter is expressed in terms of experimental perturbation amplitudes determined from the ASDEX Upgrade tokamak. It is found that fast reconnection observed during amplitude drops of the neoclassical tearing mode instability in the frequently interrupted regime can be related to stochastization

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