

## **MECHANISMS OF STOCHASTIC DIFFUSION IN OPTIMIZED HELICAL SYSTEMS**

**Ya. I. Kolesnichenko, V. V. Lutsenko, V. S. Marchenko, H. Wobig<sup>1</sup>**

<sup>1</sup> *Max-Planck Institut für Plasmaphysik, IPP-EURATOM Association, Garching bei München, Germany*

Various mechanisms of stochastic diffusion of energetic ions in optimized stellarators are reviewed and analyzed. It follows from the carried out analysis that alpha losses caused by stochastic diffusion in the Wendelstein-line stellarators (Helias configurations) result mainly from successive orbit transformations of the transitioning particles.