

## **CORE-LOCALIZED ALFVÉN EIGENMODES IN STELLARATORS**

**Ya. I. Kolesnichenko, V. V. Lutsenko, H. Wobig<sup>1</sup>, Yu. V. Yakovenko**

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

The work deals with discrete Alfvén eigenmodes in optimized stellarators of the Wendelstein line. It is shown that core-localized Alfvén eigenmodes do exist in these systems. In particular, mirror-induced Alfvén eigenmodes (MAE) and helicity-induced Alfvén eigenmodes (HAEsi) localized in the plasma core of the four-period Helias reactor are found. The results are obtained by solving numerically an eigenmode equation derived in *Ya. Kolesnichenko et al., Phys. Plasmas*, 8, 491 (2001).