

Observation of chaotic ELMs in HL-2A tokamak*

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The high confinement mode (H-mode) operation is recently obtained in HL-2A divertor configuration, the corresponding edge localized mode (ELM) is recognized as being of type III. Time intervals in ELM time series are analysed to obtain the information about the ELM process. Signatures of unstable periodic orbits (UPOs) are detected, which are indicators of chaos and may be used to control the big ELM events.

Keywords: tokamak plasma, plasma confinement, edge localized modes, chaotic systems

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