

Abstract Submitted
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The influence of pedestal parameters on ELM energies and heat fluxes for DIII-D¹ M. KNOLKER, LMU MUNICH, J-W. AHN, ORNL, A. BORTOLON, R. NAZIKIAN, PPPL, A.W. LEONARD, GA, H. ZOHN, IPP — In our study of various H-mode shots with low electron collisionality on DIII-D, we find that the effective ELM wetted area decreases relative to the inter-ELM wetted area. A first extensive analysis does not reveal a clear pedestal pressure dependence of ELM energy density or ELM material load (defined by dividing the ELM rise energy by wetted area and square root of rise time). A database has been developed, tracing the distribution of ELM energies to the divertor, main chamber and radiated fraction. Using data from Langmuir probes, fast bolometers, and IR cameras, the role of collisionality and relevant quantities in the linear peeling ballooning model of the pedestal is studied and compared to the IR footprint in the divertor. Discharges are chosen where both the outer and inner strike point are seen on IR cameras simultaneously. Our preliminary observations encourage further research to identify the correct scaling properties of the ELM wetted area on DIII-D and to compare to observations on other devices.

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