

Abstract Submitted  
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**Global 3D Braginskii-based edge simulation of an L-H transition<sup>1</sup>**

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— We present a milli-seconds long pre L-H transition simulation with the global edge turbulence code GDB. This study was carried out in a simple shifted circular flux surfaces magnetic configuration with IWL Alcator C-Mod parameters. The simulation domain is toroidally and poloidally global and spans 3 *cm* of the closed-flux region and 2 *cm* of the scrape-off layer ( $-3 \text{ cm} < r-a < 2 \text{ cm}$ ). The plasma is heated in the core region ( $r-a < -3 \text{ cm}$ ) and sourced near the separatrix ( $r \approx a$ ). Several interesting features are exhibited in this simulation that concur with experiments, including enhanced  $E \times B$  shear flow, suppressed turbulence, inward particle pinch and formation of pedestal via plasma heating. Detailed results and further analysis will be presented in the meeting.

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