

Abstract Submitted  
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**Comparison of SOL Turbulence in Limited and Diverted Plasmas in Alcator C-Mod** STEWART ZWEBEN, PPPL, JAMES TERRY, BRIAN LABOMBARD, MARTIN GREENWALD, BRUCE LIPSCHULTZ, MIT, OLAF GRULKE, IPP Greifswald, BRUCE SCOTT, IPP Garching, DAREN STOTLER, PPPL — Edge turbulence in the scrape-off layer (SOL) will be important in determining the power and particle flux on the divertor surfaces in future devices such as ITER. One of the factors determining the SOL turbulence may be the parallel connection to the wall. This relationship has been studied in Alcator C-Mod by comparing the SOL turbulence in diverted plasmas with inner wall limited plasmas under similar conditions. The SOL turbulence was measured near the outer midplane with gas puff imaging and Langmuir probes. Comparisons of the fluctuation levels, frequency spectra, and correlation lengths and times will be made. Initial comparisons will also be made with an edge turbulence simulation using an electromagnetic gyrofluid model.

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