

Abstract Submitted
for the DPP98 Meeting of
The American Physical Society

Sorting Category: 5.1.1.2 (experimental)

ELM Effects in the DIII-D Divertor¹ J.G. WATKINS,
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LEONARD, T.H. OSBORNE, General Atomics — This paper compares
recent high time resolution Langmuir probe measurements of density,
temperature, and particle flux during ELMS with calculations from a
1D kinetic scrape-off layer ELM model. Thomson scattering measure-
ments, phase normalized to the ELM time, and target plate heat flux
are also included in the model comparison. Recent investigations have
shown that the population of fast electrons in the DIII-D scrape-off
layer and divertor is too low to affect the target plate Langmuir probe
measurements of T_e during ELMy H-mode and PDD except during a
brief interval during ELMS but may provide a significant fraction of the
divertor heat flux in detached plasmas. Distribution functions calcu-
lated during and between ELMS will be presented and compared with
the experimental data. Time evolution of divertor target plate and SOL
parameters during and between ELMS will be shown.

¹Work supported by U.S. DOE under Contracts DE-AC04-94AL85000,
W-7405-ENG-48, and DE-AC03-89ER51114, and Grants DE-FG02-97-
ER-54392 and DE-FG02-91-ER-54109.

- Prefer Oral Session
 Prefer Poster Session

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Special instructions: DIII-D Poster Session II (divertor physics, disruptions, RF, & diagnostics),
immediately following Schaffer

Date submitted: July 21, 1998

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