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**Temporal Evolution of Divertor Visible Emission Profiles During Type-I ELMS at Low and High Density in DIII-D**<sup>1</sup> M.E. FENSTERMACHER, M. GROTH, C.J. LASNIER, G.D. PORTER, LLNL, J.A. BOEDO, UCSD, N.H. BROOKS, A.W. LEONARD, GA, J.T. HOGAN, ORNL — Recent divertor ELM characterization experiments on DIII-D provide multiple simultaneous fast diagnostic data on the evolution of particle and energy fluxes in the divertor during Type-I ELMS for plasma densities in the range  $0.35 < n_e/n_{Gr} < 0.8$ . Fast gated intensified cameras with a tangential view obtained the evolution of CIII and  $D_\alpha$  2-D emission profiles from above the X-point to the target. At low  $n_e$  the CIII emission peak in the inner SOL moved from X-point to target during the large ELMS indicating transient reattachment of the detached inner divertor leg. These ELMS perturb both the pedestal  $n_e$  and  $T_e$ . At high  $n_e$ , the smaller ELMS perturbed primarily the pedestal density and the divertor emission profiles showed evidence that the detached outer leg transiently reattached during the ELM. Details of the 2-D profiles during the full ELM cycle and comparisons to time dependent fluid modeling will be shown.

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- Prefer Oral Session  
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M.E. Fenstermacher  
max.fenstermacher@gat.com  
Lawrence Livermore National Laboratory

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