

**Abstract Submitted for the 51st Annual Meeting  
Division of Plasma Physics  
November 2–6, 2009, Atlanta, Georgia**

**Heat Transport in Off-axis EC-Heated Discharges in DIII-D,\*** M.E. Austin, K.W. Gentle, *U. Texas-Austin*, C.C. Petty, *GA*, T.L. Rhodes, L. Schmitz, G. Wang, *UCLA* — In low-density H-mode discharges in DIII-D, ECH applied off-axis produces electron temperature profiles with strong peaking at the heating location and very slow penetration of heat into the core. This type of discharge is a counter example to the heat-pinch effect normally seen in tokamaks where off-axis heating propagates rapidly to the center. In a recent experiment on DIII-D, the conditions for producing these “bat-eared”  $T_e$  profiles were studied. It was observed that H-mode is a necessary condition; L-mode discharges exhibit the classic heat pinch. A region of low transport corresponds to the  $q=1$  surface as verified by the sawtooth inversion radius. Results of transport analysis are presented as well as measurements of  $n_e$  and  $T_e$  fluctuations.

\*Work supported by the US DOE under DE-FG03-97ER54415, DE-FC02-04ER54698, and DE-FG02-08ER54984.