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Triple probe measurements of edge plasma parameters in the Compact Toroidal Hybrid torsatron¹ M. CIANCIOSA, E. THOMAS, G. HARTWELL, S. KNOWLTON, Auburn University — Sheared flows arising from transverse electric fields are observed in space, laboratory and fusion plasmas. Experiments to be performed on the Compact Toroidal Hybrid (CTH) device ($R = 0.75$ m, $a \sim 0.2$ m, $B \leq 0.7$ T, $n_e \leq 10^{19}$ m⁻³) will investigate the stability of the stellarator plasma in response to modifications of the radial electric field. In these studies, the radial electric field structure will be modified by means of a biased limiter. As a first stage of this project, measurements are needed of plasma parameters in the edge region of the CTH device. This presentation will give initial measurements of plasma parameters by means of a triple Langmuir probe. Plans for biased limiter studies on CTH will also be presented.

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- Prefer Oral Session
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