

Abstract Submitted  
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**Indication of GAM and electrode biasing effect on GAM in STOR-M Tokamak** MASARU NAKAJIMA, DEBJYOTI BASU, AKBAR ROHOLLAHI, DAVID MCCOLL, JOSEPH ADEGUN, CHIJIN XIAO, AKIRA HIROSE, University of Saskatchewan — STOR-M is a small, iron-core, limiter based tokamak with major and minor radii of 46 cm and 12 cm, respectively. Recent experimental studies have been carried out to detect GAM in this machine. Four Langmuir probe sets have been inserted into the plasma. The first three Langmuir probe sets are located in the same toroidal plane, inserted from top, bottom and outboard of the mid-plane. The fourth set is inserted from the outboard of the mid-plane, but toroidally separated from the others by  $90^\circ$ . Each probe set consists of three Langmuir probe tips for  $I_{\text{sat}}$ , floating potential and I-V curve measurements. Preliminary experimental results with slightly higher edge- $q_a$  (within 5 to 6) clearly indicate a  $180^\circ$  phase difference between the up and down density fluctuation signals near 20 kHz. The floating potential fluctuation signals from the same locations at the same frequency showed no observable phase shift. Preliminary data indicate the presence of conventional GAM in STOR-M. In the near future, magnetic fluctuation properties of GAM oscillations in STOR-M as well as the responses of the GAM properties to electrode biasing will be studied. Detailed experimental results will be presented.

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