Abstract Submitted
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Observation of reverse shear Alfvén eigenmodes in Alcator C-Mod and their modeling with NOVA* E.M. EDLUND, M. PORKOLAB, N.P. BASSE, L. LIN, S.J. WUKITCH, MIT PSFC, G.J. KRAMER, PPPL — The phase contrast imaging (PCI) system on Alcator C-Mod has observed reverse shear Alfvén eigenmodes (RSAE) during the current ramp with early ICRF heating. Using the ideal MHD code NOVA[1], the frequency chirping characteristics of these modes can be modeled with good accuracy. It is noted that the minimum frequency may be interpreted as the geodesic deformation of Alfvén continuum at low frequency[2]. RSAEs observed with PCI show intermittent behavior that suggests a significant continuum interaction. Ignoring fast particle effects, the MHD eigenmode solutions from NOVA are compared to the experimental data. The central shear and q_{min} are adjusted until a good fit is achieved. Possible q profiles based on this analysis will be presented.

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[1]C.Z. Cheng and M.S. Chance, J. Comp. Phys. **71**, 124 (1987).
[2]M.S. Chu et al., Phys. Fluids B **4**, 3713 (1992).

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