

Abstract Submitted  
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**MHD activity during the pre-thermal quench phase of gas jet mitigated disruptions on Alcator C-Mod**<sup>1</sup> GEOFFREY OLYNYK, MATTHEW REINKE, DENNIS WHYTE, ROBERT GRANETZ, IAN HUTCHINSON, MIT Plasma Science and Fusion Center, VALERIE IZZO, University of California, San Diego — Using multiple AXUV diode arrays on Alcator C-Mod, radiated energy during gas jet mitigated disruptions has been shown to be toroidally asymmetric, with the ratio of energy on opposite- looking diode arrays ranging from 1.1 to 2.6 [Reinke et al., *Bull. Am. Phys. Soc.* **54**(15), UO4.00003]. Asymmetry of this magnitude during mitigated disruptions on ITER would lead to melting of the beryllium first wall [M. Sugihara et al., *Nucl. Fus.* **47**(4), 337–352]. Using a toroidal array of poloidal field pickup coils, there is shown to be a link between the growth rates of low-n MHD modes during the pre- thermal quench (pre-TQ) phase of the mitigated disruption and the radiation asymmetry during the TQ. This is also evidence for the role of MHD activity in triggering the TQ. The implications of this correlation for reducing the radiation asymmetry are discussed.

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