

Abstract Submitted  
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**Changes in Rotation and Rotational Shear by Resonant Magnetic Perturbations (RMPs)**<sup>1</sup> S. MORDIJCK, College of William and Mary, R.A. MOYER, University of California San Diego — In order to understand the full impact of RMPs on peeling-ballooning stability we need to investigate not only the experimental changes in the pressure profile, but also in the edge rotation and rotational shear as a function of  $q_{95}$ . For  $q_{95}$  values where edge localized modes (ELMs) are suppressed, there is strong reduction in the carbon toroidal rotational shear in the pedestal region as measured by the charge exchange recombination diagnostic. The changes in toroidal rotation are the main contributor to the changes in  $E_r$  and  $E \times B$  shearing rate. Suppression of ELMs by RMPs depends strongly on the value of  $q_{95}$ , whereas changes in the pressure profile only show a weak dependence. In contrast, the change in the  $E \times B$  shearing rate is much more pronounced than the small changes in pressure profile and could play an important role in suppressing ELMs.

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