Abstract Submitted
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Low-Energy electrons in Saturn's Magnetosphere ANNA DEJONG, JAMES BURCH, Southwest Research Institute — Electron data from the Cassini Electron Spectrometer (CAPS-ELS) are examined from July 14, 2004 to April 30, 2010. When Cassini is within $\pm 10^o$ latitude of the equator a peak in the low energy electrons ($\sim 100eV$) is observed to extend from approximately 7 to 8.5 R_S. We find this low energy peak, which has been reported in total density by Wahlund et al. [2005], to be associated with localized plasma injections. When the electrons are separated by pitch angle there is difference in the longitudinal and local time dependences. This result indicates that there is a large source of interchange instability at 330° SLS3 and in the nightside of the Saturnian magnetosphere.

Anna DeJong
Southwest Research Institute

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