

Abstract Submitted  
for the APR08 Meeting of  
The American Physical Society

**Recent Operational Experience and Future Plans for the Cornell Electron Storage Ring**<sup>1</sup> JAMES CRITTENDEN, Cornell University, CESR OPERATIONS GROUP TEAM — Operation of the Cornell Electron Storage Ring CESR for the production of charm quark bound states from 2002 to 2008 has resulted in world-record data sets of decays of  $\psi(2s)$ ,  $\psi(3770)$  and  $D_s^*$  mesons. The CESR-c project required the resolution of a unique array of accelerator physics problems associated with the dynamics of counter-circulating  $e^+/e^-$  beams in a single beam pipe and with the damping-dominated optics which were a necessary consequence of employing twelve wiggler magnets to reduce the damping time from 500 ms to 50 ms. We discuss performance limits and operational experience obtained during the six years of operation of CESR as a charm factory. Future plans for CESR, including its continued operation as a synchrotron light source, its near-term conversion to an ILC damping ring R&D testbed, and its use as an essential component for a proposed Energy Recovery Linac will be presented as well.

<sup>1</sup>Work supported by the National Science Foundation

James Crittenden  
Cornell University

Date submitted: 11 Jan 2008

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