APR09-2009-020102

Abstract for an Invited Paper
for the APR09 Meeting of
the American Physical Society

30 Years of the Cornell Electron Storage Ring

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The Cornell Electron Storage Ring (CESR) began operation in 1979 with two experiments, CLEO and CUSB. Initially, CLEO and CUSB saw the $\Upsilon(1S)$ and $\Upsilon(2S)$ states that were discovered at Fermilab and confirmed at DESY, confirmed the $\Upsilon(3S)$ state, and demonstrated that it was narrow. Then the two collaborations discovered the $\Upsilon(4S)$ and the found that it was significantly broader than the lower Υ states. This observation and CLEO's discovery of enhanced lepton production at the $\Upsilon(4S)$ demonstrated that a new quark-antiquark threshold had been crossed and suggested that $\Upsilon(4S) \to B\bar{B}$ was the dominant decay mode of this new state. These discoveries ushered in the program of B physics pursued successfully at DESY, CERN, Fermilab, SLAC, and KEK, as well as at CESR. As BaBar and Belle took over the field of B physics at the $\Upsilon(4S)$, the CLEO collaboration turned its attention to the charm threshold regi on. I will describe some early discoveries at CESR, highlights of CLEO's B physics program with CESR at the e^+e^- luminosity frontier, and recent CLEO results on charmonium and D physics. Much of this report is based on a draft of an invited paper on this subject by Karl Berkelman, who tragically passed away before this conference. This paper is dedicated to his memory.