

Physics Department Seminar

Friday April 13th, 2007

11:00 am in PHSC 105

“Review of Electron/Positron Storage Ring Technology”



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Abstract:

Confining large currents of relativistic electrons and (in some cases) having them collide with electrons/positrons is a complicated balancing act.

The major technologies are:

Electron beam dynamics

Magnet design

Ultra-high vacuum

high-power radiofrequency

Optical and electronic instrumentation

Software engineering

Radiation shielding

High-speed feedback electronics

Precision mechanical alignment

Precision mechanical design and fabrication

These techniques and their relevance to physical and other research will be discussed.