

ACCELERATOR SEMINAR

“Muon Collider Ring Lattice Design”

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Muon collider is a promising candidate for the next energy frontier machine. However, in order to obtain peak luminosity in the $10^{35}/\text{cm}^2/\text{s}$ range the collider lattice design must satisfy a number of stringent requirements, such as low beta at IP ($\beta^* < 1$ cm), large momentum acceptance and dynamic aperture and small value of the momentum compaction factor. Here we present a particular solution for the interaction region optics whose distinctive feature is a three-sextupole local chromatic correction scheme. Together with a new flexible momentum compaction arc cell design this scheme allows to satisfy all the above-mentioned requirements and is relatively insensitive to the beam-beam effect.

**Thursday, January 7, 2010
3:30 p.m. – 4:30 p.m.
CEBAF Center, Room L102/104**

**Coffee before Seminar
Beginning at 3:00 p.m.**