

PEP-N: a new e^+e^- collider at SLAC

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A new project for an asymmetric e^+e^- collider is under discussion at SLAC, to study in detail the $\sim 1.2 \div 3.1$ GeV c.m. energy interval.

The project foresees a small ring (most of the components already exist at SLAC), to store e^- in the $150 \div 800$ MeV energy interval, to make collisions with the PEP-II e^+ (not interfering with the B factory) and collecting an integrated luminosity ~ 100 more than in the past.

On the basis of a Workshop organized by SLAC on May, a possible detector layout and physics topics are presented, namely:

- a measurement of the total cross section at a percent level,
- a measurement (made easier by the asymmetry) of all the Baryon form factors,
- a search for narrow structures, also on the basis of the new results by E687 in diffractive photoproduction.