

Meson Physics at JLab - Now and in the 12 GeV Era

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The Continuous Electron Beam Accelerator Facility (CEBAF) at Jefferson Lab is a unique tool for the study of atomic nuclei that can provide intense, cw beams of polarized electrons with energies of up to 6 GeV. It has been in full operation for just over a dozen years now, and over 150 experiments have been completed. These experiments cover a broad range of nuclear physics research in which the precision of the electro-weak interaction has been used to address key questions in the field. The principle focus of this research program is on strong interaction physics. Its broad outlines will be reviewed, and examples of results from recent experiments presented with an emphasis on results relevant to meson physics. The new science that will become feasible upon completion of the upgrade now underway to enhance CEBAF by doubling its beam energy to 12 GeV and constructing an expanded suite of scientific instrumentation will also be discussed.

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