## APR20-2020-001098

Abstract for an Invited Paper for the APR20 Meeting of the American Physical Society

## The Continuous Electron Beam Accelerator Facility<sup>1</sup> STUART HENDERSON, Jefferson Lab

The Continuous Electron Beam Accelerator Facility (CEBAF) at Jefferson Lab initiated operation in 1995 and since then has served as the central experimental tool for fundamental nucleon structure and hadron physics research in the U.S. When built, the facility was the first deployment of superconducting radiofrequency technology at a large scale, setting the pace for the SRF-based accelerators throughout the world that followed. The facility recently completed the 12 GeV Upgrade to double the electron beam energy from 6 GeV to 12 GeV, enhance experimental capabilities, and construct a new experimental hall with a focus on exotic meson spectroscopy. Today CEBAF supports a wide-ranging experimental program encompassing nucleon structure, hadron spectroscopy, and fundamental symmetries based on exquisitely controlled, polarized high-energy electron beams, serving an international user community numbering more than 1600. This presentation will review the evolution of CEBAF, its important contributions to nuclear physics and accelerator science and technology, and describe its exciting prospects for the future.

<sup>1</sup>This material is based upon work supported by the U.S. Department of Energy, Office of Science, Office of Nuclear Physics under contract DE-AC05-06OR23177