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Overview of the CAPTAIN program QIUGUANG LIU, Los Alamos Natl Lab, CAPTAIN COLLABORATION — Liquid argon time projection chamber detectors are taking center stage for the next large projects that the high-energy physics society will pursue. A series of tens of kiloton liquid argon detectors are under development to be used to measure the neutrino oscillation parameters, the CP violation in the neutrino sector, and the neutrino mass hierarchy, while also for the opportunity to the search for proton decay and supernova measurement as part of the DUNE program. However, several smaller liquid argon detectors are needed to study cross-sections and perform studies at various energies. The CAPTAIN Collaboration is building a 10-ton liquid argon detector as well as a prototype detector to perform measurements that include neutron interactions in liquid argon using the beam at LANSCE and neutrino measurements using the beam at Fermilab. The prototype experiment, MiniCAPTAIN, has been commissioned and is successfully running with laser operations, cosmic rays, and recently with neutrons from LANSCE. I will present an overview and status of the CAPTAIN program.

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