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Light Meson Decays at Jefferson Lab ILYA LARIN, Old Dominion University — Decays of the eta and eta' mesons provide a unique possibility to probe physics beyond the Standard Model including searches for dark matter. The CLAS 6 GeV program in Hall B acquired large data-sets of light meson decays which are under analysis. The Jlab Eta Factory (JEF) Experiment has been proposed in Hall D to measure eta decays emphasizing rare neutral modes. Upgrading the central region of the GlueX forward calorimeter from lead glass to lead tungstate would provide 2 orders of magnitude background reduction compared to other facilities. Progress in CLAS 6 GeV light meson spectroscopy studies and details of the proposed JEF experiment will be presented.

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