

Abstract Submitted
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Search for medium effects on light vector mesons RAKHSHA NASSERIPOUR, CHADEN DJALALI, CLARISSE TUR, University of South Carolina, MICHAEL WOOD, University of Massachusetts, Amherst, DENNIS WEYGAND, Jefferson Laboratory, CLAS COLLABORATION — Theoretical calculations predict the modifications of properties of vector mesons such as their masses and widths in dense nuclear matter. These modifications can be related to more fundamental physics such as partial restoration of chiral symmetry at high density. An experiment was performed using the CEBAF Large Acceptance Spectrometer (CLAS) at Jefferson Lab. The data were taken with a tagged photon beam of energies up to 4 GeV on various nuclear targets. The properties of light vector mesons, ρ , ω , and ϕ , have been investigated through their rare leptonic decay to e^+e^- . This decay channel is preferred over the hadronic modes in order to eliminate the final state interactions in the nuclear matter. Preliminary results will be shown and discussed.

Rakhsha Nasseripour
University of South Carolina

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