

Abstract Submitted
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Recent advances in the search for a leptophobic boson at GlueX
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Massachusetts Inst of Tech-MIT, GLUEX COLLABORATION — A compelling
dark-force scenario introduces a new $U(1)_B$ gauge symmetry coupling to baryon
number. A search for a leptophobic boson has been performed at GlueX in its main
decay channels taking advantage of the direct photoproduction mechanism. A bump
hunt strategy has been extended to cover a wide unexplored region of the (M_B, α_B)
plane where all previous experiments could not set limits. The data collected at
GlueX provided a significant contribution to this search, which also motivates other
similar BSM searches at Jefferson Lab.

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