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DarkLight Invisibles Effort[1] NARBE KALANTARIANS, Hampton University — The DarkLight (Detecting A Resonance Kinematically with eLectrons Incident on a Gaseous Hydrogen Target) experiment at Jefferson Lab intends to study the process $e^- p \to e^- p A'$, with A' being a hidden gauge boson decaying to $e^- e^+$. DarkLight will explore the A' mass region 10-100 MeV with sensitivity to couplings as low as $\alpha'/\alpha_{EM} \propto 10^{-7}$ with 1 ab^{-1} of data. The complete kinematic information provided by the DarkLight detector also permits a search for an invisibly decaying A'. In contrast to the numerous visible decay searches, both attempted and planned, there is considerably less data for the invisible decay. Furthermore, the limited data for invisibles' searches is from beam-dump and indirect decays, making this a unique measurement. This talk will focus on the invisibles effort for DarkLight, covering both the related physics and necessary instrumentation.

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