

New Scientific Opportunities with the TRIUMF ARIEL e-linac



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Illuminating the Dark Photon with DarkLight

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The search for a dark photon holds considerable interest in the physics community. Such a force carrier would begin to illuminate the dark sector. Many experiments have searched for such a particle, but so far it has proven elusive. In recent years the concept of a low mass dark photon has gained popularity in the physics community. Of particular recent interest is the ^8Be and ^4He anomaly, which could be explained by a 17 MeV mass dark photon. The proposed Darklight experiment would search for this potential low mass force carrier at ARIEL in the 10-20 MeV e^+e^- invariant mass range. This talk will focus on the experimental design and physics case of the Darklight experiment.

Attendance

Contact Email

Scheduling Constraints

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