

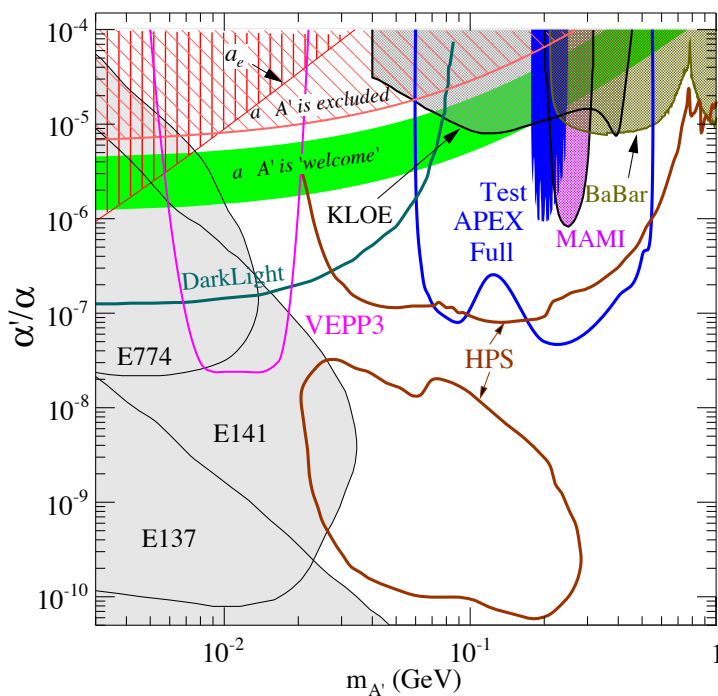
LEPP JOURNAL CLUB

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Search for a Heavy Photon

A heavy-photon portal to dark matter is under investigation in accelerator-based experiments. Heavy photons would be a natural component of dark matter and would allow us to explain a number of recent intriguing observations in astrophysics. An overview of existing data and ongoing/proposed experiments at electron beam facilities will be presented. I will outline a newly developed proposal to search for a heavy photon in the mass range of 7-15 MeV in the missing mass spectrum of electron-positron annihilations into one photon plus a missing particle. The projected sensitivity is 10-100 times better than the current limits obtained from precision measurements in particle physics.



Friday
April 12, 4:00pm
301 Physical Sciences Building
(Refreshments, 3:45pm)

