

" Probing the debris disks of nearby stars with Fermi-LAT"

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Many nearby stars are known to host circumstellar debris disks, similar to our Sun's asteroid and Kuiper belts, that are believed to be the birthplace of extrasolar planets. The asteroids in these debris disks passively emit gamma radiation resulting from interactions with cosmic rays from their host star, as previously observed from measurements of the gamma ray albedo of the Moon. We present the results of applying a point source analysis to four of these nearby debris disks using the past nearly-eight years of data taken by the Fermi Gamma-ray Space Telescope. Through this analysis, we obtain upper limits on the gamma ray flux from these debris disks that provide constraints on the physical parameters of the disk.