Probing the debris disks of nearby stars with Fermi-LAT\textsuperscript{1}
ALEXANDER RILEY, LOUIS STRIGARI, Texas AM University, TROY PORTER, ROGER BLANDFORD, Stanford University — 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 bodies in these objects passively emit gamma radiation resulting from interactions with cosmic rays, as previously observed from measurements of the gamma ray albedo of the Moon. We apply a point source analysis to four nearby debris disks using the past nine years of data taken by Fermi-LAT, and report on the prospects for detecting gamma-ray emission from these sources.

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