Gamma-Rays from Galactic Compact Sources PHILIP KAARET, University of Iowa, ON BEHALF OF THE APS WG ON THE STATUS AND FUTURE OF GROUND BASED GAMMA-RAY ASTRONOMY COLLABORATION — Recent discoveries have revealed many sources of TeV photons in our Milky Way galaxy powered by compact objects, either neutron stars or black holes. These objects must be powerful particle accelerators, some with peak energies of at least 100 TeV, and may be neutrino, as well as photon, sources. Future TeV observations will enable us to address key questions concerning particle acceleration by compact objects including the fraction of energy which accreting black holes channel into relativistic jet production, whether the compact object jets are leptonic or hadronic, and the mechanism by which pulsar winds accelerate relativistic particles. We report on work done related to compact Galactic objects in preparation of a White Paper on the status and future of ground-based gamma-ray astronomy requested by the Division of Astrophysics of the American Physical Society.

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