

## S06a Coronal Magnetic Activity in nearby Active Supermassive Black Holes

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We report the detection of coronal radio synchrotron emission from two nearby Seyfert galaxies using ALMA, VLA, and ATCA. The coronal magnetic field of both systems is estimated to be  $\sim 10$  G on scales of  $\sim 40$  Schwarzschild radii from the central black holes. This magnetic field strength is weaker than the prediction from the magnetically heated corona scenario. We also find that coronae of Seyferts are composed of both thermal and non-thermal electrons. By considering various particle acceleration processes, we find these non-thermal particles are likely to be accelerated by diffusive shock acceleration. Such non-thermal activity in Seyferts can explain the cosmic MeV gamma-ray and TeV-PeV neutrino background fluxes. We further discuss the possible neutrino production mechanism in NGC 1068, a nearby type-2 Seyfert galaxy, which is reported as the hottest neutrino spot in the 10-year survey data of IceCube.