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Abstract for an Invited Paper for the 4CF12 Meeting of the American Physical Society

An Experiment to Demonstrate the  $\alpha-\Omega$  Dynamo in the Accretion Disk Leading to Galaxy and Massive Black Hole Formation STIRLING COLGATE, Los Alamos National Laboratory

The largest concentrations of free energy in the universe are the radio lobes associated with the central galactic black hole formation, about  $10^{62}$  ergs of  $B^2/8\pi$ , or about 10% of  $M_{bh}c^2$ . How do we get to a  $10^8$  solar mass black hole and a flat rotation curve galaxy with a massive black hole at its exact rotation center and put the free energy in the magnetic field? This may mean that about  $10^5$  solar masses of low energy (a few Mev) neutrinos are emitted in the process. Could we detect them with Gadzooks? How do baryons do this in a dark matter potential? Turbulence inhibits a dynamo, which must have coherence and phase information (Cattaneo and Tobias) in baryon-dominated hydrodynamics. The proof is in an experiment.