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New exact force-free magnetospheres and an AGN model ALEXANDRU LUPSASCA, SAM GRALLA, MARIA RODRIGUEZ, Harvard Univ — We recast the equations for a stationary axisymmetric force-free magnetosphere in the form of an equation for the poloidal field lines. This formulation enables us to find new exact solutions in flat spacetime, including one whose geometry closely resembles that of an active galactic nucleus. We then use this solution to model jet formation and energy extraction from a slowly spinning black hole.

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