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PHYSICS OF BLACK HOLES*

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ABSTRACT

The activity at the galactic center might be fuelled by energy release near a large black hole. In this talk I describe some relativistic effects which may be relevant to this process. I use Newtonian language so far as possible and illustrate the effects with "simple" analogies. Specifically, I describe the gravitational field near a black hole, Lens-Thirring and geodetic precession, electromagnetic energy extraction of the spin energy of a black hole and the structure of accretion tori around black holes.

*This paper is identical to "Black Holes and the Origin of Radio Sources", Kip S. Thorne and Roger D. Blandford, in "Extragalactic Radio Sources", Proceedings IAU Symposium #97, ed. D. S. Heesch and C. M. Wade (Reidel, Dordrecht, Holland 1981).

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