

Cosmology 1

2023/2024
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Solution of proposed problem, lecture 4

Topic: Photon capture radius.

	M87*	SgrA*
$R_G = GM/c^2$	64.4 AU	0.04 AU
$R_s = 2GM/c^2$	128 AU	0.08 AU
θ_{flat}	15 μarcsec	20 μarcsec
θ_{pcr}	39.6 μarcsec	51.8 μarcsec
$t_d = GM/c^3$	532 m	20.1 s