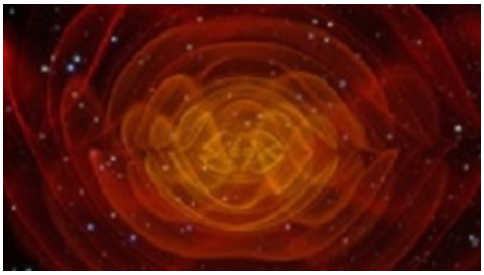

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Overcharging Higher-dimensional Black holes using point particles

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We investigate the possibility of overcharging charged spherically-symmetric black holes in spacetime dimensions D > 4 by the capture of a charged particle. We generalize Wald's classic result that extremal black holes cannot be overcharged. For nearly extremal black holes, we study how D affects the overcharging parameter space first discovered by Hubeny in D = 4. We find that overcharging becomes difficult for nearly-extremal black holes in the large D-limit.

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