The black hole -galaxy connection

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Abstract:

There is evidence that every galaxy contains at least a central super massive black hole (mass range 10^6-10^8 solar masses). The mass of the black hole is estimated to be about 1/1000 the mass of its host galaxy. Further, the best studied cases show a correlation between the mass of the black hole and the amplitude of the potential depth of the galaxy.

I will explore physical mechanisms for this intriguing correlation and its implication on the effect of black holes on shaping the properties of galaxies.