

Abstract Submitted  
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**The evolution of galaxies and black holes in the era of precision cosmology**<sup>1</sup> RYAN HICKOX, Dartmouth College — With the initial parameters of the Universe now exceptionally well constrained, there has been remarkable recent progress in understanding how its components (dark matter halos, galaxies, and black holes) form and evolve over cosmic time. I will give a brief overview of the current picture of galaxy evolution as developed through large-scale surveys, observations of the distant Universe, and cosmological simulations. I will focus on the connections between galaxies and their central supermassive black holes, and will discuss some recent observational advances in this area as well as some current outstanding problems. In particular, I will highlight recent results about the importance of "flickering" nuclear activity in galaxies, and speculate that all star-forming galaxies may host actively growing supermassive black holes.

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