

The assembly of massive black holes in the early universe

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Abstract

In the past 15 years evidence has been accumulating on a population of bright quasars, powered by massive black holes, already in place when the Universe was less than a billion years old. These rare black holes, with mass estimates of up to a few billion solar masses are likely the “tip of the iceberg”, black holes that witnessed a rapid growth. A still elusive population of lower mass black holes, including the initial “seeds”, must represent the building blocks of both these high-redshift powerful quasars, as well as the massive black holes we detect today in nearby galaxies, including our own Milky Way. I will discuss theoretical models of the formation and growth of the first black holes, and how they relate to today’s black holes.