

Massive Black Holes from Dissipative Dark Matter

Tuesday, 6 February 2018 12:00 (20 minutes)

We show that a subdominant component of dissipative dark matter resembling the Standard Model can form many intermediate-mass black hole seeds during the first structure formation epoch. We also observe that, in the presence of this matter sector, the black holes will grow at a much faster rate with respect to the ordinary case. These facts can explain the observed abundance of supermassive black holes feeding high-redshift quasars. The scenario will have interesting observational consequences for dark substructures and gravitational wave production.

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