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## **Initial Galaxy Model of NGC 5252**

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We present initial condition galaxy model of NGC 5252, which galaxy has black hole, gas particles, dark matter halo particles and bulge particles. This model uses Navarro–Frenk–White (NFW) profile and Sersic profile for describes distribution of particles. NFW profile describes profile of dark matter. In another way, Sersic profile describes how the surface brightness of a system varies with distance from the center, which sersic index = 5.18. Finally, this initial condition galaxy model can used to study kinetic feedback from active galactic nuclei (AGN) and galaxy evolution.

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