

Dark Matter in Numerical Simulations of Galaxy Clusters

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Numerical models are developed at the Institute for Astrophysics in Innsbruck, Austria, in order to understand properties of clusters of galaxies, especially the metal enrichment of the intracluster gas. We present the dynamical evolution of the dark matter component, which is calculated by an N-body tree code and the resulting gravitational potential. Special emphasis is put on different ways to project this potential onto a nested grid, which is used for the hydrodynamic simulations of the gas. Further implications of the dark matter on the initial conditions of the gas simulations are discussed.

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