

# Gravitational N-body Simulations Reproduce Cosmic Structure

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Current thought suggests that gravity is responsible for the universe's rich structure of galaxies, clusters of galaxies, etc. The formation of this structure can be simulated by applying the gravitational dynamics of matter ("particles") to an expanding universe. While the basic equation is Newton's law of gravity, which simplifies the application, modern simulations contain more than 10 billion (!) mass particles and employ supercomputers and special-purpose computers. A figure on page 9 shows the result of such a simulation.

