

A Status Report on the Superbox Code

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During the last years the Superbox code has been considerably improved. An export version is available, contact addresses above.

- What is Superbox ?
Superbox is a particle-mesh code with nested high-resolution sub-grids to treat one or more galaxies. The method is fast and self-consistent, statistical noise is low due to the large number of particles. Effects of two-body relaxation are negligible. The computational memory requirement is small. In our talk examples and applications will be presented, e.g. the conservation of energy and angular momentum are discussed.
- Additional new features:
 - memory requirement does not depend on the number of galaxies
 - a fast sticky-particle algorithm is implemented to represent cold gas
 - Superbox is able to treat comoving coordinates in cosmological experiments
- Future projects: A parallel version of the code is in progress.