

The Gaia Universe Model

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Abstract

The ESA Gaia astrometric mission has been designed to create an extraordinarily precise 3D map of about one billion of stars throughout the Galaxy and beyond.

The Gaia Universe Model provides the astronomical sources - with their 3D position, velocity, magnitude and physical parameters- required to generate the simulated data for the development and testing of the massive data reduction software. Different types of objects, both galactic and extra-galactic, are provided by the model, including normal stars, several types of variable stars, supernovae, unresolved stars or quasars.

A full description of the Gaia Universe Model can be found in Robin et. al 2012 (*Astronomy & Astrophysics*, 453, A100).