

# The Gaia Simulator: Design and Results

E. Masana, Y. Isasi, X. Luri, and J. Peralta

**Abstract** Simulation of the data generated during the 5 year observations is one of the most relevant aspects of the Gaia mission preparation. The simulations allow the development and test of the reduction algorithms to be used during the mission. A complex software named Gaia Simulator has been developed in order to perform the simulation. It includes three different data generators: Gibis, to produce pixel level images; Gass, to provide telemetry data stream; and Gog, designed to generate the final data mission or data at an intermediate state of the reduction process. The three data generators share several libraries, including the universe and instrument models.

---

E. Masana, Y. Isasi, X. Luri, and J. Peralta

Departament d'Astronomia i Meteorologia Universitat de Barcelona, C/ Martí Franquès 1,  
Barcelona 08028 Spain

e-mail: emasana@am.ub.es