Gaia Data Release 2



Special issue

## **Editorial**

## Gaia Data Release 2

Astronomy & Astrophysics has the great pleasure of publishing a special issue on the second data release (DR2) of the Gaia space mission which has been obtaining exquisite astrometric and photometric measurements since July 2014. Gaia DR2 is based on the analysis on the first 22 months of the mission, and is the first data release that allows a peek at the full potential of the Gaia mission. It represents a game-changing leap for stellar and Galactic astronomy.

The release provides parallaxes, proper motions and two-colour photometry for over a billion sources, and radial velocities for 7 million stars. The articles in this special issue describe the complex data processing of the *Gaia* observations, provide extensive validation checks, and quantify important caveats on the remaining shortcomings of the DR2 data. They also provide spectacular illustrations of the scientific potential of the new data, and will no doubt form the basis for excellent science over the coming years.

Thierry Forveille, Rubina Kotak, Steve Shore, and Eline Tolstoy

\*Astronomy & Astrophysics Editors\*