IMPRS Heidelberg invites graduate students to its 13th summer school. The 2nd data release DR2 of the Gaia mission published in April 2018 provides positions, colours, parallaxes and proper motions for more than a billion stars. For the brighter stars radial velocities, extinction and a spectral classification are also provided. Information about variability and transient phenomena including effects of General Relativity on the observations is available. These data allow a big leap forward in many and very diverse fields of research.

The school will look at the data structure and tailored methods of data analysis and data mining. We will discuss how Gaia data can be used for a range of scientific topics. The emphasis will be on merging practical methodology and solving real-world problems to address questions like: What can we learn from Gaia data in different research fields? How to select Gaia data efficiently? How to handle errors and correlations? How to visualize the data structure and the results?

Invited key lecturers:

- **James Binney** (Rudolf Peierls Centre for Theoretical Physics, Oxford)
- **Angela Bragaglia** (INAF-Observatory of Astrophysics and Space Science)
- **Anthony Brown** (Leiden Observatory)
- **Laurent Eyer** (Observatoire de Genève)
- **François Mignard** (Universite Cote d’Azur)

**Deadline for registration is July 1, 2018**

**Contact:** imprs-hd@mpia.de

**Information & registration:** [www.imprs-hd.mpg.de/Summer-School](http://www.imprs-hd.mpg.de/Summer-School)