Subject：Gaia による現代の天文学: 位置天文学での実践とさまざまな応用について
(Practical introduction to modern astrometry with Gaia and its interdisciplinary applications)

Instructor：Pau Ramos, Makoto Miyoshi (NAOJ)

Outline：The Gaia satellite has revolutionized the world of astronomy as well as many other fields, from cosmology to the dynamics of our Solar System. Since its lunch just 10 years ago, it has provided us with positions and velocities for thousands of millions of objects - mostly stars inside the Milky Way but also for the galaxies in the Local Group and even for the brightest objects in the Universe, Quasars. In these two hands-on sessions, we will learn the main characteristics of Gaia, what makes it so special and how to work with astrometric measurements. The students will have the chance to explore
and play with the Gaia data through a series of guided exercises that will allow them to reproduce recent results in Milky Way dynamics and Galactic Archeology, like
digging up the fossil record of a merger that occurred in our Galaxy some 10Gyr ago.
This course will also serve as an introduction to TopCat, an extremely useful data exploration software used by Astronomers worldwide.
The goal is to provide a welcoming environment for students to ask any questions regarding the exercises, astronomy or research in general.
No previous knowledge is needed to join. The exercises will be conducted by Dr. Ramos, mostly in English, but also in Japanese if needed, with the support of Dr. Miyoshi.
Please bring your own computer.

Maximum number of students to be accepted：6