

March 6th , 2019

Dear A1 commission member,

Following are two items concerning our commission , one is for the status of the Gaia Data Release 3 (DR3) , another concerns a colloquium “Journées 2019” to be held at Paris Observatory in October 7-8-9, 2019.

1. Status of Data Release 3 (DR3) of the Gaia mission (transmitted by A. Brown)

The Gaia data processing toward Gaia DR3 is progressing at full speed. Although the schedule has stabilised, there are several uncertainties as many elements of the pipelines will see the real data in an operational environment for the first time. Taking the uncertainties into account brought the schedule of the next release toward the end of the earlier announced period of the first half of 2021.

To mitigate the impact on research, the Gaia DR3 will be split into two releases. This way, data that is ready earlier, will be released earlier. The early release, Gaia EDR3, contains astrometry and (integrated) photometry i.e. positions, parallaxes, proper motions, G-band fluxes as well as integrated red- (RP) and blue-band (BP) fluxes, all based on 34 months of data resulting in better accuracy with respect to Gaia DR2. First results for a predefined list of quasars and extended objects may also be included already in the early release. Gaia EDR3 will take place in Q3 of 2020.

Gaia DR3, which is anticipated to take place during the second half of 2021, will replace Gaia EDR3. This means that the source list and any data published in Gaia EDR3 will not change, but is simply copied to Gaia DR3. Therefore Gaia DR3 is based on the same 34 months of mission data as for Gaia EDR3. The additional products include:

- radial velocities (significantly more due to fainter magnitude limit),
- BP/RP/RVS spectra for a subset of the DR3 sources (new products),
- Solar system data (significantly more sources included),
- variability information (significantly more objects due to longer time interval),
- results for non-single stars (new products), and
- astrophysical parameters (based on spectra).

The final inclusion of the products into Gaia DR3, as well as Gaia EDR3, is subject to successful validation.

2. Colloquium “Journées” in October 7-8-9, 2019

A colloquium entitled “*Journées 2019 : Astrometry, Earth Rotation and Reference Systems in the Gaia era*” will be held at Paris Observatory on October 7th, 8th and 9th, 2019. This symposium will be organized jointly by IAU commissions A1 and A2 (Rotation of the Earth). A large place will be devoted to our A1 commission topics. It will also be the occasion to celebrate the 100th birthday of commission A2 (formerly named commission 19).

Scientific objectives

These Journées 2019 are sponsored by Paris observatory, CNRS-INSU, GRAM and co-sponsored by the International Astronomical Union (IAU) and the International Association of Geodesy (IAG). They are in the direct continuation of the recurrent Journées which have been organized with success during more than two decades. The main purpose of this international meeting is to provide a forum for advanced discussions in the fields of astrometry, Earth rotation, space and time reference systems and frames, solar system dynamics and ephemerides, time metrology and space navigation. A particular attention will be given to the recent progress made in the fields of astrometry due to the exploitation of the Gaia mission and to the recently adopted ICRF3, as well as to the celebration of the Centenary of the IAU commission “Rotation of the Earth”, with scientific and historic contributions

Topics of the Journées (not exclusive)

Advances in astrometry at solar system, galactic and extragalactic scales
Rotation of the Earth
Solar system dynamics
Reference systems and frames
Time and frequency metrology
Ephemerides
Space navigation

Information and registration

People interested to participate are invited to register soon at:

<https://syte.obspm.fr/astro/journees2019>