

Program of the workshop

“Astrometry/photometry of Solar System objects after Gaia”

14-15-16 October, 2015

Meudon Observatory

Salle du CIAS – Grande coupole – building 9

October 14 – 14h

Opening

Session 1: REDUCTIONS

How to increase the astrometric accuracy using the Gaia reference catalogue?

-V. Robert

Astrometric reduction of old observations before and after Gaia

-X. Xi

Digitization and Position Measurement of Astronomical Plates of natural Satellites

-J.E. Arlot

The reduction of old observations: the NAROO project

Coffee break

-C. Le Poncin-Lafitte

Relativistic astrometry at the micro-arcsecond level

How to increase the accuracy of the mutual events to challenge direct astrometry with Gaia?

-N. Emelianov

Astrometric reduction of the PHEMU observations: overcome obstacles to increase the accuracy.

-discussion on “reductions”

October 15 – 10h

Session 2: OCCULTATIONS

How the star occultation observations will benefit from the Gaia project?

-J. Camargo

Short time span ephemeris for Pluto

-B. Sicardy

How the star occultation observations will benefit from the Gaia project

-R. Vieira-Martins

GAIA and the orbit determination of faint TNOs using Public Deep Surveys - occultation predictions

-P. Tanga

Gaia and the asteroid: the future of ground-based observations.

Lunch

October 15 – 14h

-discussion on “occultations”

Session 3: OBSERVATIONS

**What should be the astrometric observational program in the next ten years ?
Which objects are still worth to be observed by ground based telescopes? How
amateurs could help?**

-D. Hestroffer

Astrometry and dynamics of SSOs with the Gaia satellite and the Gaia mission

-A. Vienne

Satellites and planets: which observations need theoreticians in dynamics?"

Coffee break

-J. Desmars

Improvement of ephemerides with the Gaia catalogue

-N. Emelianov

Determination of the Masses of Planetary Satellites from Their
Mutual Gravitational Perturbations

-discussion on Observations

October 16 – 10h

Session 4: TELESCOPES

Which instruments for amateurs and professional after Gaia?

-F. Colas

The available ground-based telescopes for solar system objects observation.

-N. Cooper

Astrometric observations from space after Gaia

-V. Lainey

Observing bright satellites (Galileans): which techniques to be used?

-J.E. Arlot

Observing planets through their satellites

Lunch

October 16 – 14h

-W. Beisker

The detection limit of telescopes of the sub meter class with different CCD detector systems, with special respect to short exposure times.

-T. Midavaine

What could be Amateur astronomer contributions to Post GAIA Pro-Am collaboration ? Review of the set up range of amateur equipments, how to update it ?
The problems encountered by the amateurs

-J.E. Arlot

Imaging the natural satellites: which techniques to be used

Coffee break

-final discussion of the workshop - conclusions

October 16, 17h30

Cocktail-reception

Program of the colloquium:

“Astrometry/photometry of Solar System objects after the Gaia project”

17-18 October, 2015

Paris Observatory – Salle de l’atelier

October 17: 10h

-J.E. Arlot

40 years of mutual events observations

-N. Emelianov

PHEMU-2015: review of the observations and preliminary astrometric results.

-R. Vieira-Martins

Observations of Galilean satellites close approach – astrometric results

-R. Vieira-Martins

Phemu 2015 – Brazilian campaign results

Lunch

October 17: 14h

-J. Camargo

Astrometry of the main satellites of Uranus: 18 years of observations"

-A. Ivantsov

The international astrometric network for astrodynamical studies of asteroids: asteroid mass determination and physical properties of PHAs'

-H. Ettroudi

Participation to the Phemu15 campaign of the SAT

Coffee break

-T. Midavaine

The amateur participation to Phemu15 campaign

-E. Saquet

Review of the Phemu15 campaign: the photometric reduction

-E. Bredner

How can we find new participants to our observations?

October 18: 10h

-A. Sonka, M. Popescu, D. A. Nedelcu, M. Birlan:

PHEMU 2015 - The Bucharest observational campaign"-Final discussion

-E. Bredner

How can we find new participants to our observations

-C. Valencia Gallardo

Using the TimeBox for precise timing of astronomical phenomena using digital video devices.

-J. Sussenbach

High resolution imaging of the mutual events of the Galilean satellites during the 2015 Jupiter apparition

Lunch

A tour in Paris Observatory

October 18: 14h

-W. Beisker

The detection limit of telescope: solutions and conclusions.

-B. Christophe and O. Dechambre

Observing Amalthea

-E. Saquet

Eclipses of the inner satellites of Jupiter

Coffee break

-Final discussion and conclusions