



Extrait du Observatoire de Paris - PSL Centre de recherche en astronomie et astrophysique

<https://www.obspm.fr/international-workshop-in.html>

International Workshop in Astronomy and Dynamics



Date de mise en ligne : mardi 10 février 2015

Observatoire de Paris - PSL Centre de recherche en astronomie et
astrophysique

Meeting "International Workshop in Astronomy and Dynamics" on april the 28th, 29th and 30th 2015 at Paris' Observatory, Paris, France.



Numerically integrate the equations of motions of the solar system for tens or hundreds of million years and identify resonances which are at the source of the main instabilities. Here are the mathematics of Lagrange, Poincaré, Arnold tightly linked to the development of sophisticated numerical methods such as frequency analysis, but also to the development of a new computer algebra system. Then realize that such a global study of the phase space can be transposed to particle accelerators on the one hand, on the other hand that the frequencies coming into play over very long time intervals in the quasiperiodic approximations of the eccentricities and inclinations of planets meet with current investigations on paleoclimates and even allow us, by comparison with the frequencies found in ice cores, to refine the calibration of the latter. The diversity of speakers in this meeting does not hide anymore what brings them together. What a better illustration of the work of Jacques Laskar than this kaleidoscope, gathered on the occasion of his 60th birthday :

- celestial mechanics and long term integrations
- mathematics and dynamical systems
- physics and particle accelerators
- geology and paleoclimates
- numerical computing ?