Activités en planéto.
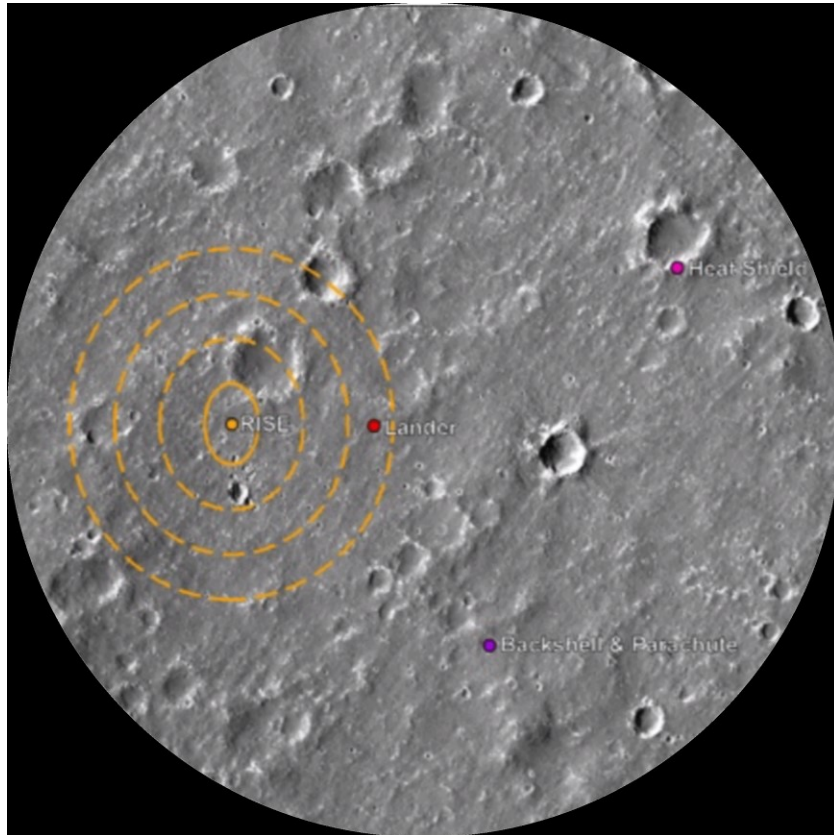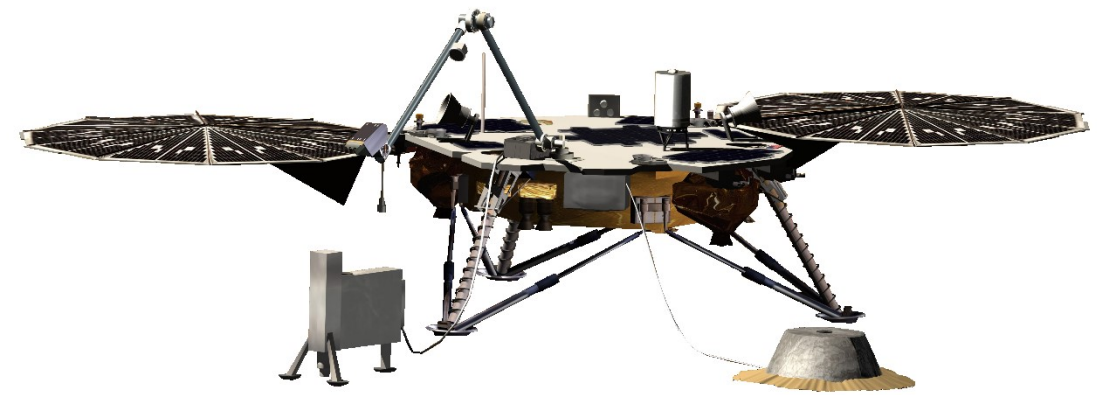
Insight
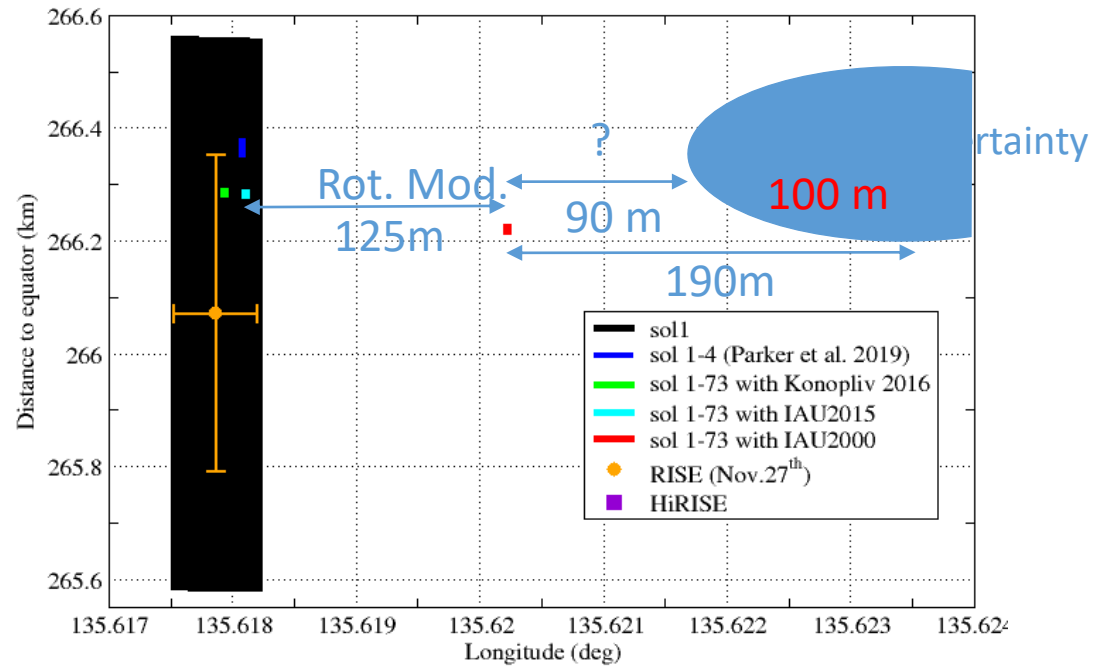

- ORB positionnement avec données RISE

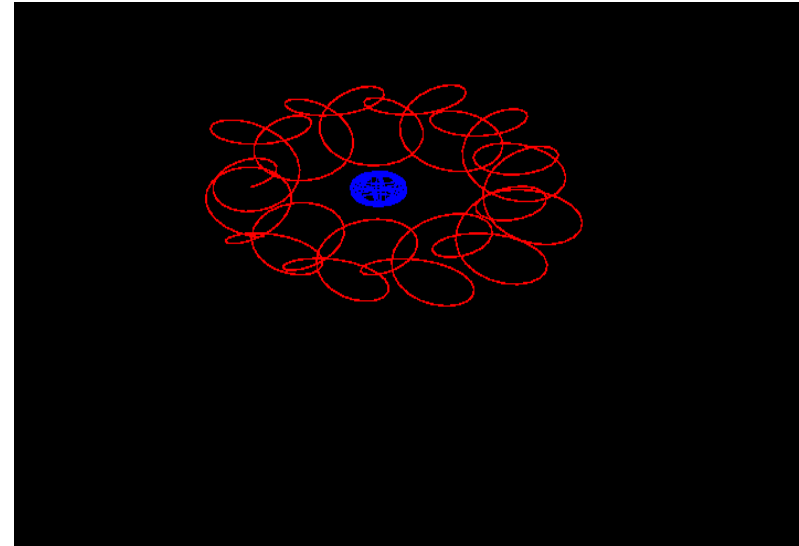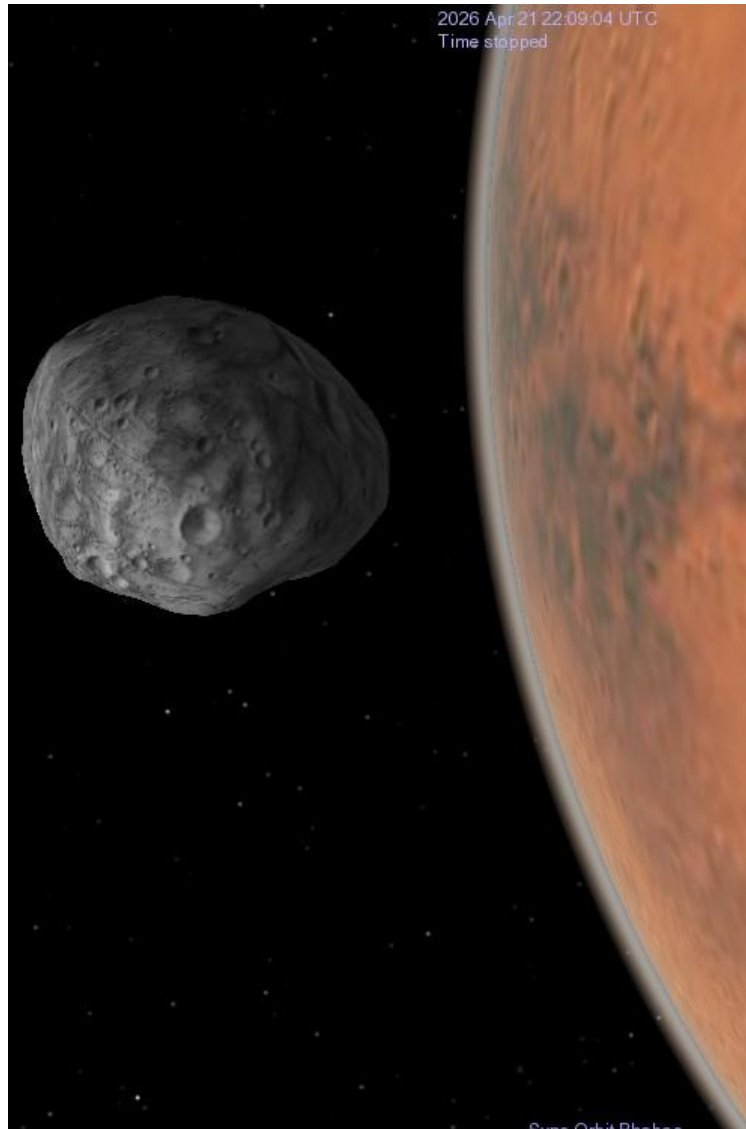
position errors induced by the radio-science sources of errors:
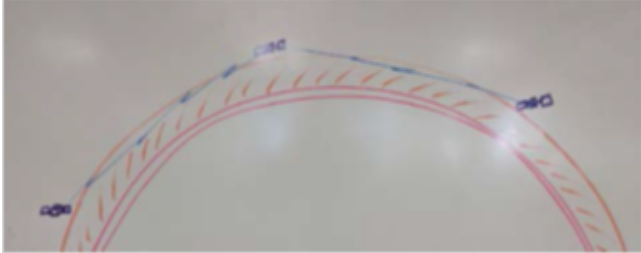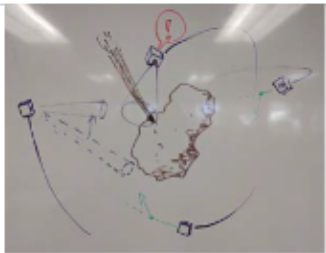- Mars rotation model errors
- Propagation noises

Simulations MMX

QSO (Quasi-Satellite-Orbit).
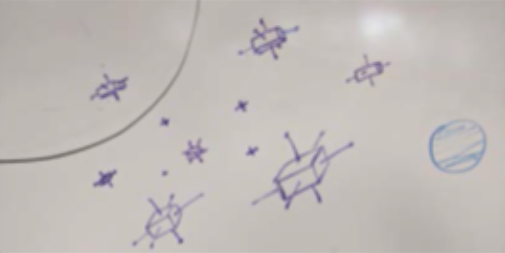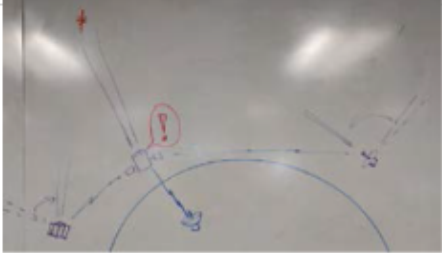
Computation confirm that :
- the closer the trajectory is, the better it is for gravity field, more over 3D QSO are strongly better than 2D ones,
- assimilation of distance measurements (LIDAR) increase the accuracy of reconstruction,
- 2 DSN stations allow to increase number of measurements and then gravity field accuracy,
- first guess for Phobos gravity field have a small impact.

# AI/SmallSats/Constellations Technology Demonstration

| Exploration		Astrophysic	
Mars Train	**Comet constellation network**	**Radio Interferometry**	**Event detection**
A train of spacecraft at Mars. Spacing is maintained such that they get atmospheric occultation, and they use this for science observations.	A loose constellation of spacecraft around a comet collaborate autonomously to image plumes as they occur.	A constellation of spacecraft to create a radio interferometer, with precise knowledge and on-board processing. Far from Earth to limit interference.	A constellation of spacecraft with γ-ray detectors and heterogeneous instruments. The spacecraft can react to transient events (either detected by the constellation, or by ground instruments), and localize them autonomously.

TGO

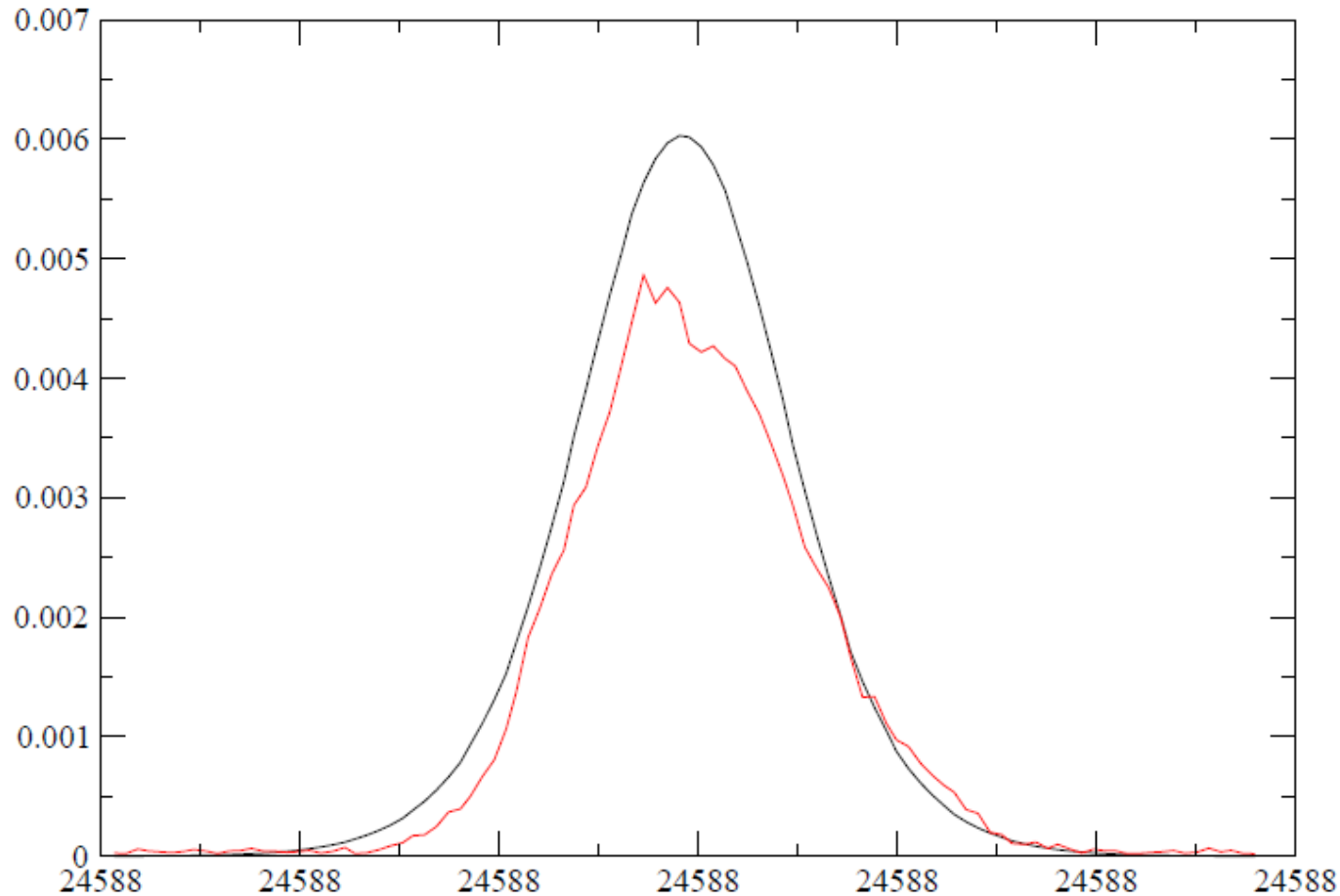- Calcul des densités aux périastres de l'orbite d'aerofreinage
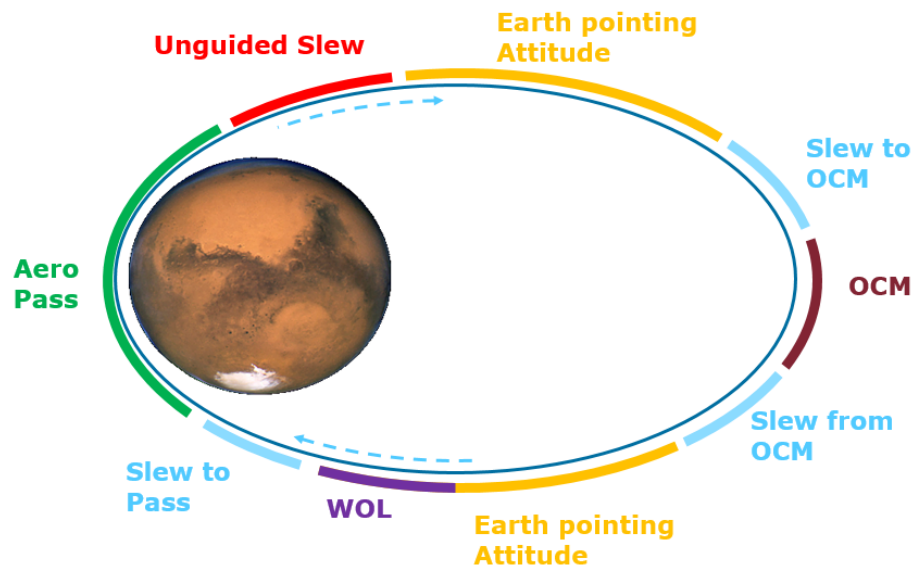
TGO BUS : quaternions du 2017- 5-18
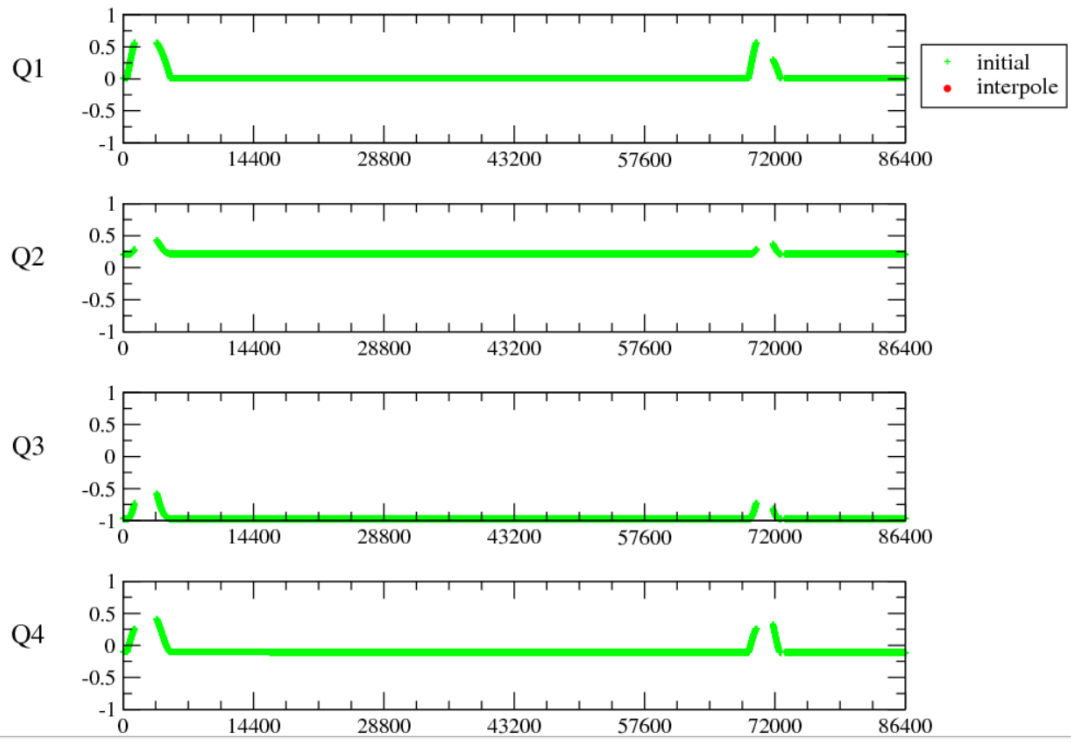
TGO PAN1 : quaternions du 2017- 5-18
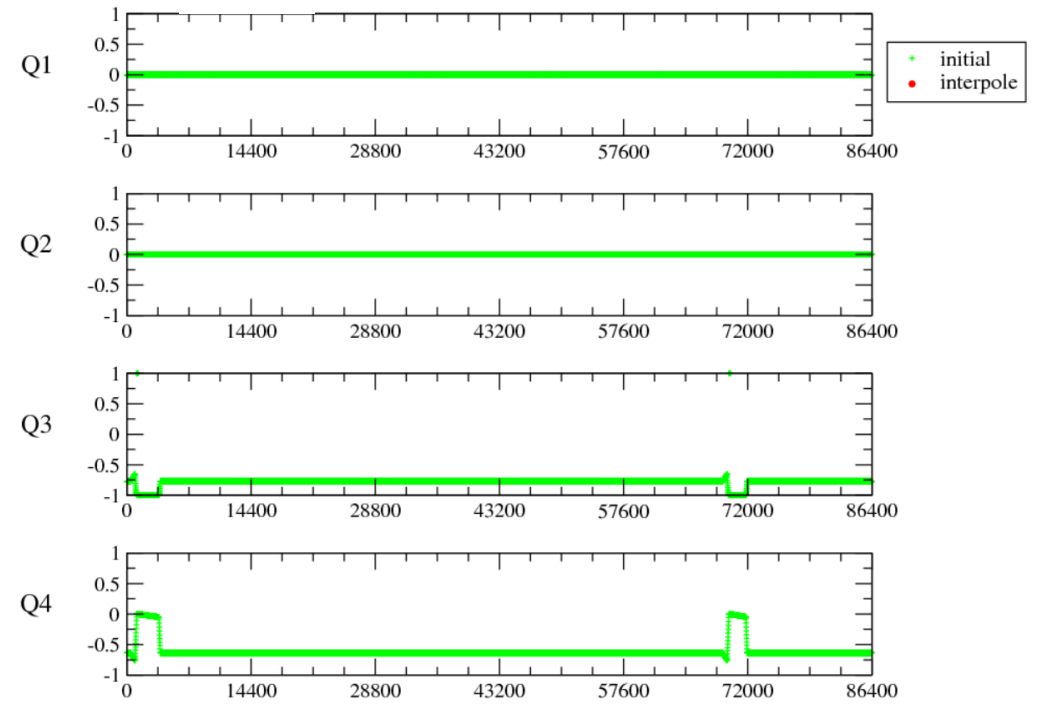
Accélérations
noir modèle - rouge accéléromètre

VALIDATIONS AVEC VTS