

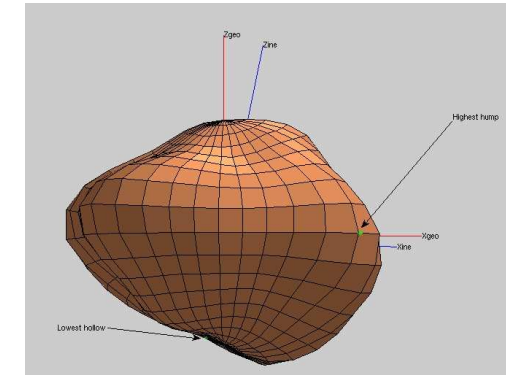
# Comet modelling

In the frame of the ROSETTA mission, CNES is in charge of the lander (PHILAE) flight down to the comet's surface. The trainee must take in existing tools (ANDROMAC) in order to analyse the inputs. To do that, the trainee will have to assimilate the models used:

- ◆ Gravity fields around a comet,
- ◆ out gassing,
- ◆ dust,
- ◆ Comet geometry
- ◆ surface,
- ◆ ephemerid and pole's movement
- ◆ lander strengths

Thus, the trainee will have to be able to verify this inputs from an informatics and physics point of view. Once the integrity is checked, He will check the physical interpretation done by ANDROMAC.

To do this the candidate will have to implement Scilab tools to represent the results. By the end of the stage, the trainee will prototype a tool to verify the integrity of the inputs (to be used before delivering to CNES)



## Requirements:

- Applied mathematics,
- Physics,
- Space flight dynamics (basics)
- Programming (Scilab and Fortran)
- Engineers, physicist, or mathematicians

## Languages:

- English mandatory
- French recommended

## Other information:

- Starting from October/ November till February/Mars
- Scholarship of 805€/month
- Toulouse Space Center (CNES)

## Contact:

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