



JOB OFFER

The Royal Observatory of Belgium (ROB) is looking for a Postdoctoral scientist in the frame of a project about the planet Jupiter and its moons

Thanks to funding from the Belgian Federal Science Policy Office (BELSPO), a scientific position is available in the BRAIN2.0-be project INT-ORB. The aim of this project is to study the coupled internal and orbital evolution of the Galilean satellites of Jupiter. The central concept coupling the orbit with the interior is tidal heating, the heat dissipated in a satellite and in Jupiter because of tidal deformation. Tidal heating in a satellite tends to circularize the orbit, which in turn reduces tidal dissipation, whereas tidal heating in the planet makes the orbits of satellites more elliptical and increases satellite tidal dissipation. Tidal heating can be an important energy source for satellites and can play a crucial role in the existence of subsurface oceans. In this project, we will develop a self-consistent model of the coupled evolution that also includes the evolution of Jupiter. This project will help to prepare the upcoming ESA JUICE mission to Jupiter and its Galilean satellites, in which ROB is heavily involved.

The candidate will develop a model for the coupled evolution, building on the expertise at the Royal Observatory of Belgium in the structure and evolution of satellites and planets, and in their internal dynamics and tides. The candidate will also assist in the writing of peer reviewed publications and scientific reports.

The ROB (<http://www.observatory.be/>) is a Federal Scientific Institute in the green outskirts of Brussels (Uccle). The initial contract is for two years with a possibility for extension depending upon the available funding (salary level SW2 of the scientific personnel). Advantages include a flexible system of working hours.

WE ARE LOOKING FOR

The candidate has a PhD in Sciences and combines many of the following characteristics:

- Knowledge in planetary geophysics and geodesy
- Experience in numerical modelling
- Experience in the calculation of tides and normal modes of satellites and planets
- Experience in orbital mechanics
- Working and writing proficiency in English.

HOW TO APPLY

If your master was awarded outside of Belgium, the Netherlands and the Grand-Duchy of Luxembourg, you will need a certificate to demonstrate the equivalence of your degree (see https://www.belgium.be/en/education/equivalence_of_diplomas) before we can offer you a contract.

Send your CV with a motivation letter and names and coordinates of two referees before 30 November 2022 to Tim Van Hoolst, project leader in planetary sciences (tim.vanhoolst@oma.be). The beginning of the employment will be on 1 February 2023 or later.