UNIVERSITÉ DE GENÈVE
FACULTÉ DES SCIENCES
Département d'astronomie

ISDC
DATA CENTRE FOR ASTROPHYSICS

Software engineering position at ISDC

The ISDC Data Centre for Astrophysics (http://www.isdc.unige.ch/) is part of the "Observatoire Astronomique de l'Université de Genève" and was created in 1995 as the Science Data Center for the ESA's INTEGRAL mission. The INTEGRAL mission (http://www.isdc.unige.ch/integral/outreach#INTEGRAL?en) is an astronomical satellite for observing the gamma-ray sky launched in 2002, which is used by a world-wide community of physicists and astronomers. The ISDC was designed as, and is still the center responsible for the processing of the INTEGRAL data and its distribution to the worldwide scientific community, together with the dedicated analysis software.

To facilitate the access to high level products of the INTEGRAL observatory, the HEAVENS project (http://www.isdc.unige.ch/heavens/) was initiated a few years ago and it is currently used by the astronomical community. HEAVENS is a web-application with heavy data processing in the background. One important goal of this project is to increase the number of astronomical missions for which HEAVENS will provide products to the astronomical community and to the public.

During the recent years, ISDC has broadened its activities and participates at different levels in several new missions, like Gaia, Planck, ASTRO-H, CTA, FACT, Euclid and LOFT. It plays now a key role in the data center of Gaia, Planck, FACT, and Euclid. About 10 software engineers and scientists with programming duties support the scientific exploitation of the projects at ISDC.

To strengthen this group, we are looking for a software engineer with interest in physics experiments or a scientist with strong programming skills. His/her main tasks will be to support the INTEGRAL and HEAVENS projects at ISDC, but enthusiasm and versatility to support other projects is a strong asset.

More specifically, INTEGRAL data arrive 24 hours on-line from the active satellite and are processed in a dedicated network at ISDC by a set of executables and scripts. Together with experienced colleagues, the successful candidate will be in charge of maintaining this software system to guarantee the successful automatic processing 24 hours 7 days a week. The successful candidate will also be involved in the HEAVENS project so to fully realize the transformation from a mission specific data center to a general data center for astrophysics. Preparing the INTEGRAL post-mission data exploitation is a long term task.

We are looking for candidates with experience in the following fields (in order of importance):

- scripting languages, at least perl or python;
- programming (C/C++ and object oriented languages, e.g., Java);
- multi-platform support (Linux, Solaris, OS/X);
- testing, maintenance, and improvements of scientific oriented software;
- calibration of astrophysical facilities;
- web application programming with particular attention to Javascript;
- database management.

Candidates should send a motivation letter, a CV (including relevant publications), and three references electronically to Marie-Claude.Dunand@unige.ch. For additional information, please contact Carlo.Ferrigno@unige.ch and Roland.Walter@unige.ch. We are accepting applications until the position is filled.