# PhD scholarship: Ice sheet monitoring from satellites and aircraft.

The Geodynamics Department, National Space Institute (DTU Space) hereby post a 3-year PhD. position, starting December 2011 or as soon as possible after.

### Project description.

The research theme of the PhD. will involve development of methods for cryosphere monitoring from satellites (GRACE, IceSat and CryoSat-2) as well as airborne measurements, and the application to the Greenland ice sheet as well as North Atlantic region ice caps (e.g., Svalbard and Iceland). The overall goal is to obtain consistent results of ice mass loss estimates by combination of different types of remote sensing data, including validation by in-situ or other glaciological data.

The PhD project includes especially focus on analysis of Cryosat-2 data, as well as recent airborne altimetry data from both European and NASA field campaigns in and around Greenland.

The candidate will join the Nordic Centre of Excellence SVALI (<a href="http://www.ncoe-svali.org">http://www.ncoe-svali.org</a>), and is supported by the Nordic Top-level Research Initiative as well as DTU. The general aims of SVALI are to quantify the current and future melt-rate of land-based ice in the Arctic and North-Atlantic region, including the assessment of current and future effects on sea level and ocean circulation.

The PhD. student will be enrolled in the DTU PhD. programme, and the studies carried out in close Nordic cooperation, especially the Norwegian Life University in Ås, Norway. It is expected that the ph.d. student will make extended research stays at relevant Nordic scientific groups as part of the SVALI cooperation.

#### Requirements.

Candidates should hold a M. Sc. degree in geophysics, glaciology or remote sensing, or similar academic qualifications. Preference will be given to candidates good skills in computer programming and experience with satellite data or geodesy.

#### Approval and enrolment.

The admission to the DTU-Space PhD. school is subject to the academic approval of the candidates qualifications, for details see http://www.dtu.dk/English/education/Phd\_Education.aspx. The PhD. student will also be enrolled in the SVALI graduate school, and network with a large of number of SVALI PhD. students and post.docs and other Nordic research institutions.

### We offer

We offer an interesting and challenging job in an international environment focusing on education, research, public-sector consultancy and innovation, which contribute to enhancing the economy and improving social welfare. We strive for academic excellence, collegial respect and freedom tempered by responsibility. The Technical University of Denmark (DTU) is a leading technical university in northern Europe and benchmarks with the best universities in the world. For further detail concerning DTU Space, please see http://www.space.dtu.dk/English.aspx

# Salary and appointment terms.

The ph.d. position is carrying a full salary, according to the Danish government rules (at present about 29.000 DKK net before taxes)

The study will be based on the DTU-Space "South", Juliane Maries Vej 30, close to downtown Copenhagen. The student will organizationally be under the Department of Geodesy. The department is scheduled to relocate to DTU Campus in Lyngby north of Copenhagen during 2012.

# **Application**

For further information, and online application: <a href="http://www.space.dtu.dk/English/About\_NSI/Jobs.aspx?guid=4fd02b17-aa96-42ba-8d13-8801843c35f8">http://www.space.dtu.dk/English/About\_NSI/Jobs.aspx?guid=4fd02b17-aa96-42ba-8d13-8801843c35f8</a>

All interested candidates irrespective of age, gender, race, religion or ethnic background are encouraged to apply.

Contact persons for further information: Researcher Louise Sandberg Sørensen (<u>slss@space.dtu.dk</u>, tel. +45-3532-5714) or Head of Dept. Rene Forsberg (<u>rf@space.dtu.dk</u>, tel. +45-3532-5719).

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