APPLICATION

The number of participants is limited to a maximum of 60 students and subject to selection of application. Students wishing to participate can apply online via the training course website.
Application submission will be available from 15 January to 20 May 2016.

DEADLINES

Application Submission (opening)	**15 January 2016**
Application Submission (closing)	**20 May 2016**
Notification of Acceptance	**by July 2016**

FEES

No participation fees will be charged for the training. Participants are expected to finance their own travel and accommodation expenses. The official language of the course is English.

CONTACT POINTS

ESA
Earth Observation R&D Team
e-mail: eotraining@esa.int

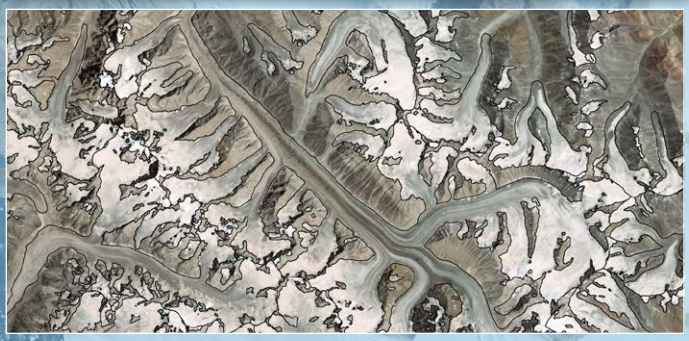
University of Leeds
Anna Hogg
e-mail: A.E.Hogg11@leeds.ac.uk

ORGANISING COMMITTEE

Marcus Engdahl | ESA
Yves Louis Desnos | ESA
Ulla Vayrynen | Serco c/o ESA
Anna Maria Trofaier | ESA
Michael Foumelis | RSAC c/o ESA
Anna Hogg | University of Leeds
Andy Shepherd | University of Leeds
Jenny Dunhill | University of Leeds
Debbie Rosen | University of Leeds

CO-SPONSORS

Workshop Coordinators:
European Space Agency (ESA)
University of Leeds
Centre for Polar Observation and Modelling (CPOM)



© ESA 2015

Landsat TM image (acquired on Aug 28, 2002) in natural colours showing the heavily debris-covered glaciers including and around Bara Shigri Glacier in the image centre. Black outlines show glacier extents as derived from automatic (for clean ice) and manual (for debris-covered parts) delineation. Image credits: USGS

https://seom.esa.int/cryotraining2016

Cover image: Victoria Fjord seen with Sentinel-2
Credits: Copernicus Sentinel data (2015) / ESA

UNIVERSITY OF LEEDS

esa

→ 1st ESA ADVANCED TRAINING COURSE ON REMOTE SENSING OF THE CRYOSPHERE

12–16 September 2016 | University of Leeds | Leeds, UK

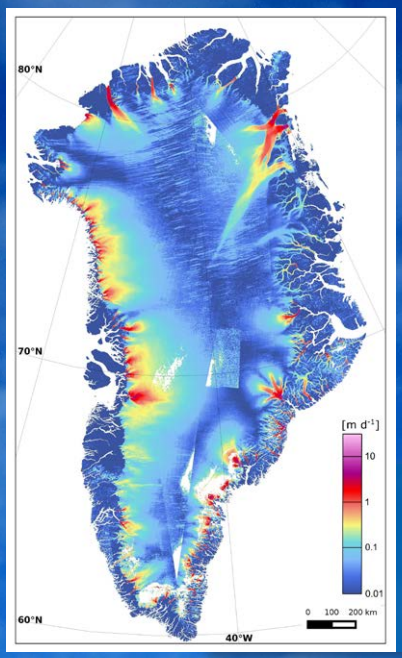
seom

BACKGROUND

As part of the Scientific Exploitation of Operational Missions (SEOM) programme element, the European Space Agency (ESA) is organising a new advanced Cryosphere Training Course devoted to train the next generation of Earth Observation (EO) scientists to exploit data from ESA and operational EO Missions (e.g. the Sentinels) for science and applications development.

Post graduate, PhD students, post–doctoral research scientists and users from European countries and Canada interested in Cryosphere Remote Sensing and its applications are invited to apply to the 5 day course which will be held at the University of Leeds, UK from 12 to 16 September 2016.

Research scientists and students from all other countries are also welcome to apply and participate to the course subject to space availability.



Greenland Sentinel-1 Ice Velocity Mosaic

Contains modified Copernicus Sentinel data (2015)/ENVEO/ESA CCI/FFG

OBJECTIVES

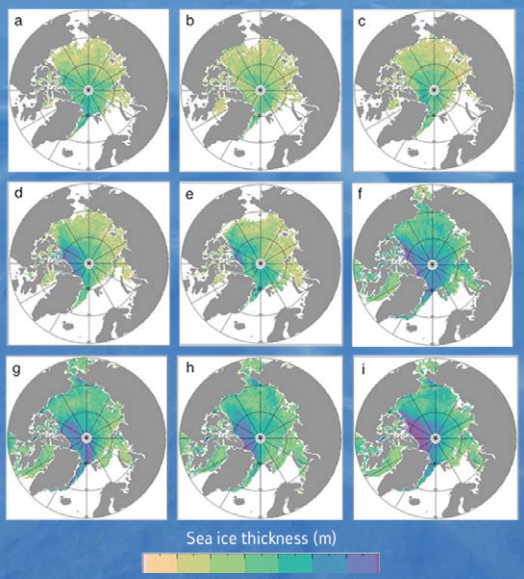
The Advanced Cryosphere Training Course aims at:

- Training the next generation of European and Canadian Principal Investigators (PIs);
- Explaining theoretical principles, processing algorithms, data products and their use in applications;
- Introducing tools and methods for the exploitation of EO satellite data, in particular from the Sentinels and Cryosat2;
- Stimulating and supporting the exploitation of ESA EO and Third Party Mission data for remote sensing science and its applications to the Cryosphere.

LECTURERS

The team of lecturers will be composed of Principal Investigators and Professors from leading universities and research institutions in Europe and Canada.

Oblique perspective view of several surging glaciers in the Panmah region, central Karakoram. The image is a screenshot from Google Earth and the region in the foreground based on a high resolution SPOT 6 satellite image from June 6, 2014.



Northern Hemisphere sea ice thicknesses as measured by CryoSat-2, from 2010–2014. a–e, Average autumn (October–November) thicknesses for 2010–2014. f–i, Average spring (March–April) thicknesses for 2011–2014.

CONTENTS

The course will provide advanced scientific knowledge on theory and applications for cryosphere remote sensing. It will be organised around five main components:

Presentation of the CryoSat-2, Sentinel-1, -2 and -3 missions;

- Theoretical fundamentals of space-borne optical, SAR, gravimeter and altimeter remote sensing;
- EO lectures on the Cryosphere, with a focus on Sea Ice, Mountain Glaciers, Snow and the Polar Ice Sheets
- Practicals using ESA toolboxes and commercial software for scientific exploitation of EO data;
- EO data processing and product demonstration for monitoring the cryosphere.

The training course will include formal lectures by leading scientists as well as hands-on computing exercises exploiting real and simulated data for science and application.