Finnish Remote Sensing Days 2012

Linus Torvalds auditorium, Exactum, Kumpula Campus
University of Helsinki
25–26 October 2012

UNIVERSITY OF HELSINKI
FACULTY OF SCIENCE

Thursday, 25 October

09:00   Plenary session. Chair: Matti Mõttus

09:00	Welcome	
09:05	Jouni Pulliainen	Sodankylä Satellite Data Centre: An Initiative to Establish Real-Time Satellite Data-Aided Services in Finland
09:30	Tuomas Häme	The Sentinels will make a difference in remote sensing services
09:55	Erkki Kyrölä	Studying atmospheric composition by satellite measurements
10:20	Pauli Stigell	Finnish Earth Observation in European programmes

10:45   Coffee break by BLOM IMAGING THE WORLD

11:00   Remote sensing of snow and ice. Chair: Kari Luojus

11:00	Kari Luojus	Overview of snow remote sensing R&D at FMI & SYKE – work towards NRT & long term snow cover data records
11:20	Marko Mäkynen	Sea ice remote sensing R&D at Finnish Meteorological Institute
11:40	Juha Karvonen	Sea Ice Concentration Retrieval Based on Dual-Polarized C-Band SAR
12:00	Robin Berglund	ICEMAR – a System for Sea Ice Information Delivery
12:20	Tuomo Smolander	Detection of Soil Moisture and Soil Freeze Using Microwave Radars

12:40   Lunch

13:30   Remote sensing of forests: General. Chair: Mika Karjalainen

13:30	Timo Vesala	**invited presentation:** From flux and concentration observations to greenhouse gas sinks and sources
14:00	Heikki Astola	EUFODOS - European Forest Downstream Services Improved Information on Forest Structure and Damage - Project presentation
14:20	Paras Pant	Spectral Characteristics of Hypespectral and Multispectral Sensors for Area Based Tree Species Classification

14:40   Poster Bazaar. Chair: Miia Salminen

15:30   Coffee by PÖYRY **. Posters on display**

16:15   Remote sensing of forests and land cover change. Chair: Mika Karjalainen

16:15	Urmas Peterson	Cross-Border Comparison of Forest Area Changes Caused by Clear-Cutting and Afforestation of Abandoned Agricultural Land Using Snow Covered Satellite Imagery in northeastern Europe
16:35	Timo Pitkänen	Tracing variations of deciduous component over grassland–forest continuum by subpixel classification
16:55	Niina Käyhkö	Consequences of land cover transitions on the sustainability of coral rag forests in Zanzibar, Tanzania
17:15	Laura Sirro	Forest crown cover estimation in northern boreal and temperate European forest
17:35	Timo Kumpula	Detecting landuse and landcover changes in reindeer pastures using multi-source remote sensing and GIS data

18:00   Sauna @ FMI by

FINNISH METEOROLOGICAL INSTITUTE

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Friday, 26 October

09:45   New technologies in remote sensing. Chair: Heikki Saari

09:45	Antti Näsilä	Aalto-1 Spectral Imager: Design and Mission
10:05	Maria Gritsevich	A Pioneer European Airborne-Based Observation Campaign of a Meteor Shower
10:25	Lingli Zhu	Using mobile laser scanning and UAV for 3D city models
10:45	Eija Honkavaara	3D hyperspectral reflectance signatures by light-weight UAVs for the monitoring and measuring the environment
11:05	Heikki Saari	UASI Summer 2012 UAV flight campaign results for forest and agriculture

11:25   Coffee by arbonaut
The single source for Forest Resource Management

11:50   Remote sensing of forests: new methods and algorithms. Chair: Ilkka Korpela

11:50	Matthieu Molinier	Social Forest Planning project : summary of results 2010-2012
12:10	Paula Litkey	Automatic detection of storm damages in forests using airborne stereoscopic images
12:30	Jan Pisek	Estimating leaf inclination and G-function from leveled digital camera photography for broadleaf tree and shrub species in Kaisaniemi and Kumpula botanical gardens, Helsinki

12:50   Lunch

13:40   Remote sensing of forests: forest structure and composition.
      Chair: Eija Honkavaara

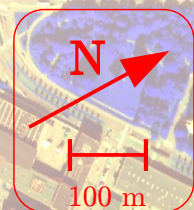| 13:40	Caner Demirpolat	Assessment of Boreal Forest Cover Properties from Interferometric TanDEM-X Data
14:00	Joel Kuusk	BRF of forests
14:20	Ilkka Korpela	Directional reflectance signatures in aerial images - an aid to tree species classification?

14:40   Wrap-up

Sponsors:

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The single source for Forest Resource Management

Location: Exactum, Kumpula Campus

Tram 6 and 8, direction Arabia, stop: Kumpula Campus

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100 m

Poster presentations

Posters will be on display during the whole day on Thursday, 25 October. Poster presenters are asked to give a short talk (maximum 2 minutes) during the Poster Bazaar at 14:40.

Krista Alikas	A robust Kd(490) algorithm for remote sensing of optically complex waters
Lea Hallik	Vegetation indices detecting the effect of climate change on vegetation
Henna-Reetta Hannula	Automatization of a Spectroradiometer Measurement System for Satellite Image Validation
Pekka Hurskainen	Application of Open-Source GIS and live GPS tracking for land use / land cover field data collection in Kilimanjaro, Tanzania
Iolanda Ialongo	Characterization of OMI tropospheric NO2 over the Baltic sea area
Jere Kaivosoja	UASI Potato Monitoring flight campaign preliminary results
Rigel Kivi	Atmospheric composition measurements in northern Finland and comparison with space borne observations
Lauri Korhonen	Modeling lidar-derived boreal forest crown cover with SPOT 4 HRVIR data
Andres Kuusk	Reference panel for remote sensing studies at Järvselja, Estonia
Petr Lukeš	Biomass and Species Composition Are Tightly Related to Forest Albedo in the Boreal Zone
Rami Piiroinen	Hyperspectral Remote Sensing in Taita Hills Kenya
Eetu Puttonen	Ground point labeling in a terrestrial laser scanning configuration with utilization of scanner-centered coordinate system
Svetlana Saarela	Model-assisted estimation of growing stock in a two-phase sampling survey utilizing ALS sample and wall-to-wall satellite optical data.
Tuure Takala	Canopy shadow fraction estimation from AISA Eagle using spectral unmixing
Tuomas Tikka	Aalto-2 – An Atmospheric Nanosatellite
Xiaochen Zou	Using digital camera for measuring leaf inclination angle in crops

Commercial presenters

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