

## **Workshop on Sea Ice Remote Sensing and Modeling**

**The University of Tokyo, Hongo Campus, Sanjo Conference Hall**

**Tokyo, Jan 23-24, 2017**

**Workshop organized under JAXA GCOM RA5 project “Retrieval of Total Sea Ice Concentration from AMSR-E and AMSR2 Data using Optimal Estimation Technique”**

**Workshop also sponsored by ArCS and ESA CCI sea ice project**

### **Monday January 23 (start at 09:30)**

Introduction to workshop & logistics (Jinro Ukita and Leif Toudal Pedersen)

### **Morning Session: Overview on past and future sea ice remote sensing and modeling**

09:45-10:15 Joey Comiso (NASA-GFSC) - Past and future status on sea ice observations

10:15-10:45 Hiroyasu Hasumi (U Tokyo) - Sea ice representation in climate models

10:45-11:15 Misako Kachi (JAXA) - Future JAXA missions

11:15-11:45 Leif Toudal Pedersen (DMI) - Copernicus, ESA and EUMETSAT activities

### **Lunch**

### **Afternoon Session: Remote sensing – Algorithms**

13:30-14:00 Georg Heygster (U Bremen) - Sea ice and snow parameter retrieval from AMSR data

14:00-14:30 Thomas Lavergne (MET Norway) - A self-optimizing and self-tuning algorithm for producing sea ice concentration climate data records

14:30-15:00 Leif Toudal Pedersen (DMI) - Optimal estimation of sea ice variables from AMSR data

15:00-15:30 Andrea Scott (U Waterloo) - Fusing sea ice concentration from passive microwave imagery with observations from SAR imagery

## **Break**

15:30-16:00 Yasushi Fukamachi (Hokkaido U) - Variability of sea-ice thickness in the northeastern coastal Chukchi Sea revealed by a moored ice-profiling sonar

16:30-16:45 Sascha Willmes (U Trier) - Lead detection in the Arctic

16:45-17:15 Takeobu Toyota (Hokkaido U) - An attempt to extract deformed sea ice area using L-band SAR images in the Sea of Okhotsk

Q/A session

## **Tuesday January 24 (start at 9:30) Uncertainty and emissivity**

09:30-10:00 Walt Meier (NASA-GFSC) - Assessment of concentration uncertainty estimates

10:00-10:30 B.J. Sohn (Seoul National U) - Retrieving the refractive index, emissivity, and surface temperature of polar sea ice from 6.9 GHz microwave measurements: a theoretical development

## **Coffee break**

11:00-11:30 Nina Maaß (U Hamburg) - Modelling the emissivity of snow-covered sea ice for retrieving ice and snow thickness at low passive microwave frequencies

11:30-12:00 Sascha Willmes (U Trier) - The MW emissivity variability of snow covered FYI from late winter to early summer

12:00-12:30 Sang-Moo Lee (Seoul National U) - Differentiating between first-year and multiyear sea ice in the Arctic using microwave-retrieved ice emissivities

## **Lunch**

## **Afternoon Session: Synthesis from remote sensing and modeling**

14:00-14:15 Thomas Lavergne (MET Norway) - Global Operational Sea Ice Drift Monitoring with GCOM-W1 AMSR2 at the EUMETSAT OSI SAF

14:15-14:45 Jinro Ukita (Niigata Univ) – Update on turning angle from Arctic buoy data

14:45-15:15 Sylvain Bouillon (NERSC) - New synergies between data and next generation sea ice models

Break

16:00-16:30 Noriaki Kimura (U Tokyo) ???

16:30-17:00 Jun Ono (JAMSTEC) - Predictability of the Arctic sea-ice extent by climate model  
MIROC

17:00-17:30 Takahiro Toyoda (JMA-MRI) ???

Q/A session

**Workshop Dinner**

Quirinale @35.69685,139.760723

03 3233 7828

Status unknown

Masayoshi Ishii (JMA) On SST

Kohei Cho (Tokai U)

Kazuhiro Naoki (Tokai U)