



## Let's face the reality

- COVID-19 has changed our way of managing GRSS, like all scientific societies, and many of its initiatives.
- The effects of the pandemics are not going away soon, and some of them may remain forever.
- There were many challenges, but also opportunities, and we are learning a lot.



## Conferences: challenging year!

- We had the opportunity to experiment immediately hybrid events at M2GARSS (small workshop), but we were forced by the pandemic to move IGARSS 2020 to a fully virtual event.
- All Societies have been invited by IEEE to prepare all our conferences for 2021 to be run as **hybrid events**.
- There are uncertainties on the economic model to be selected: "free tickets" attract, but the retention is low. High fee are not feasible: where is the right balance?



# Geoscience and Remote Sensing Society

## Monday, September 28

Mon, 28 Sep, 12:00 - 14:00 (UTC)

Mon, 28 Sep, 20:00 - 22:00 China Standard Time (UTC +8)

Mon, 28 Sep, 14:00 - 16:00 Central Europe Summer Time (UTC +2)

Mon, 28 Sep, 05:00 - 07:00 Pacific Daylight Time (UTC -7)

Event Ended **PLEN: Opening and Plenary Session**

Mon, 28 Sep, 14:05 - 14:25 (UTC)

Mon, 28 Sep, 22:05 - 22:25 China Standard Time (UTC +8)

Mon, 28 Sep, 16:05 - 16:25 Central Europe Summer Time (UTC +2)

Mon, 28 Sep, 07:05 - 07:25 Pacific Daylight Time (UTC -7)

Event Ended **Platinum Sponsor How NASA Studies Earth's Weather**

Mon, 28 Sep, 14:30 - 16:30 (UTC)

Mon, 28 Sep, 22:30 - 00:30 China Standard Time (UTC +8)

Mon, 28 Sep, 16:30 - 18:30 Central Europe Summer Time (UTC +2)

Mon, 28 Sep, 07:30 - 09:30 Pacific Daylight Time (UTC -7)

### TU1.R17: Machine Learning for Earth Observation I

Live Session has Ended

Tue, 29 Sep, 12:00 - 14:00 (UTC)

Tue, 29 Sep, 20:00 - 22:00 China Standard Time (UTC +8)

Tue, 29 Sep, 14:00 - 16:00 Central Europe Summer Time (UTC +2)

Tue, 29 Sep, 05:00 - 07:00 Pacific Daylight Time (UTC -7)



**Session Co-Chairs:** Ronny Hänsch, German Aerospace Center (DLR) and Andrea Marinoni, Arctic University of Norway  
**Session Manager:** Diana Michelle Cruz Lainez  
**Track:** Special Themes

### TU1.R17.1: MULTI-OBJECTIVE OPTIMIZATION FOR ACTIVE SENSOR FUSION

Sebastian Haan, Fabio Ramos, Dietmar Muller, University of Sydney, Australia


12:00-12:10 (UTC)  
 20:00-20:10 (UTC +8)  
 14:00-14:10 (UTC +2)  
 05:00-05:10 (UTC -7)

Technical Program / Session TU1.R17 / Paper TU1.R17.1

**TU1.R17.1**

### MULTI-OBJECTIVE OPTIMIZATION FOR ACTIVE SENSOR FUSION

Sebastian Haan, Fabio Ramos, Dietmar Muller, University of Sydney, Australia



**Session:** Machine Learning for Earth Observation I

**Track:** Special Themes

**Presentation Time:** Tue, 29 Sep, 12:00-12:10 (UTC)

**Presentation**

### Multi-objective Optimization for Active Sensor Fusion

Sebastian Haan<sup>1</sup>, Dietmar Müller<sup>2</sup>, and Fabio Ramos<sup>3</sup>

<sup>1</sup>Sydney Informatics Hub, The University of Sydney  
<sup>2</sup>EarthByte Group, School of Geosciences, The University of Sydney  
<sup>3</sup>Centre for Translational Data Science, The University of Sydney

Live Session has Ended

**Discussion**

After clicking the **Join the Discussion** button below, be sure to **REPLY** to the specific paper you wish to direct your comment to.

**Session**

**TU1.R17.1: MULTI-OBJECTIVE OPTIMIZATION FOR ACTIVE SENSOR FUSION**  
 Sebastian Haan, Fabio Ramos, Dietmar Muller, University of Sydney, Australia

**TU1.R17.2: TRAINING GENERAL REPRESENTATIONS FOR REMOTE SENSING USING IN-DOMAIN KNOWLEDGE**  
 Maxim Neumann, Andre Susano Pinto, Xiaohua Zhai, Neil Houlsby, Google, Switzerland

**TU1.R17.3: REMOTE SENSING IMAGE CAPTIONING WITH SVM-BASED DECODING**  
 Genc Hoxha, Farid Melgani, University of Trento, Italy

**TU1.R17.4: VISUAL LOCALIZATION BASED ON REMOTE SENSING SCENE MATCHING WITH SIAMESE FEATURE AGGREGATION NETWORK**  
 Wang Chen, Yuan Yuan, Gancho Liu, Northwestern Polytechnical University, China

**TU1.R17.5: STEREO MATCHING OF VHR REMOTE SENSING IMAGES VIA BIDIRECTIONAL PYRAMID NETWORK**  
 Rongshu Tao, Yuming Xiang, Hongjian You, Chinese Academy of Sciences, China

**TU1.R17.6: Angular Luminance for Material Segmentation**  
 Jia Xue, Matthew Purri, Kristin Dana, Rutgers University, United States

**TU1.R17.7: REMOTE SENSING IMAGE SEGMENTATION METHOD BASED ON HRNET**  
 Zhi Cheng, Huangqana Polytechnic College, China;



## “Ad hoc” webinars

- Short webinars (20 min.) with a longer interactive session (40 min):
  - each of the TCs presents its activities as a way to have the IGARSS TC meeting on-line;
  - a few selected Chapters present
    - how to set up a new chapter (e.g., Tunisia);
    - how to successfully run a chapter (e.g., Brazil);
    - how to engage in ChapNets and inter-chapter activities (e.g., an Indian Chapter).
- The webinars are recorded, and posted on the GRSS YouTube channel with a news story & link in the GRSS web site, as a way to show what GRSS communities can do.



## Examples

- “**Benchmarking ML4RS**” by the Image Analysis and Data Fusion TC: <https://www.youtube.com/watch?v=AyScQJwdckE>
- The **Frequency Allocation in Remote Sensing** TC activities: <https://www.youtube.com/watch?v=q8l99Mkwyi8>
- **How to run a Chapter** by the Kolkata Chapter: <https://www.youtube.com/watch?v=ltpGob4hBLc>
- **GRSS Social Media Ambassadors** and their current activities: [https://www.youtube.com/watch?v=O7B0\\_uXCFAU](https://www.youtube.com/watch?v=O7B0_uXCFAU)



## Opportunities for the AdCom

- Limit the in-person attendance to the AdCom meetings only to voting AdCom members, with remote attendance by other “AdCom at large members” and (if useful) additional sessions for business open to discussion by the whole GRSS membership.
- Organize “hybrid mode” Strategic Planning Meetings in November, with the aim to involve more members and communities, and make them able to provide inputs to the discussion by designating a speaker, who remotely addresses the AdCom.



## More opportunities

- Education
  - Improve the Education portfolio with more MOOC modules
  - Start working on an online GRSS program for higher education
  - Coordinate GRSS Summer Schools all over the world with remote contributions from top speakers
- Information Resources
  - YouTube channel to broadcast GRSS information and advertise GRSS activities
  - More SMAs



## ... and even more

- Global Activities
  - Online outreach and support for regional activities
  - Organize more “local” and “regional” conferences: in Europe, in North America?
  - On-line interaction of a more entertaining nature. 5-10 minute video clips that are compelling and informative - serious but not overly academic. About jobs, networking, applications, how to get ahead, life experiences in GRSS, how to get involved, etc.
- InterSociety
  - Joint remote activities (summer schools, webinars, AdCom meetings) with other Societies: GRSS & ISPRS in Brazil