Session 2 - New GRUAN data products

2 - 1 20:00 - 20:20 GNSS-PW (Galina Dick)

2 - 2 20:20 - 20:50 Modem M10 GDP (Jean-Charles Dupont et al.)

2 - 3 20:50 - 21:00 Lidar (Thierry Leblanc)

2 - 8 21:00 - 21:10 ASOPOS 2.0: Involvement GRUAN together with GAW-NDACC and IOC (Herman Smit)

2 - 4 21:10 - 21:30 Meisei IMS-100 (& RS11G) (Shunshuke Hoshino)

Flash updates

2 - 5 21:30 - 21:35 MWR (Nico Cimini)

2 - 6 21:35 - 21:40 Ozone (Richard Querel)

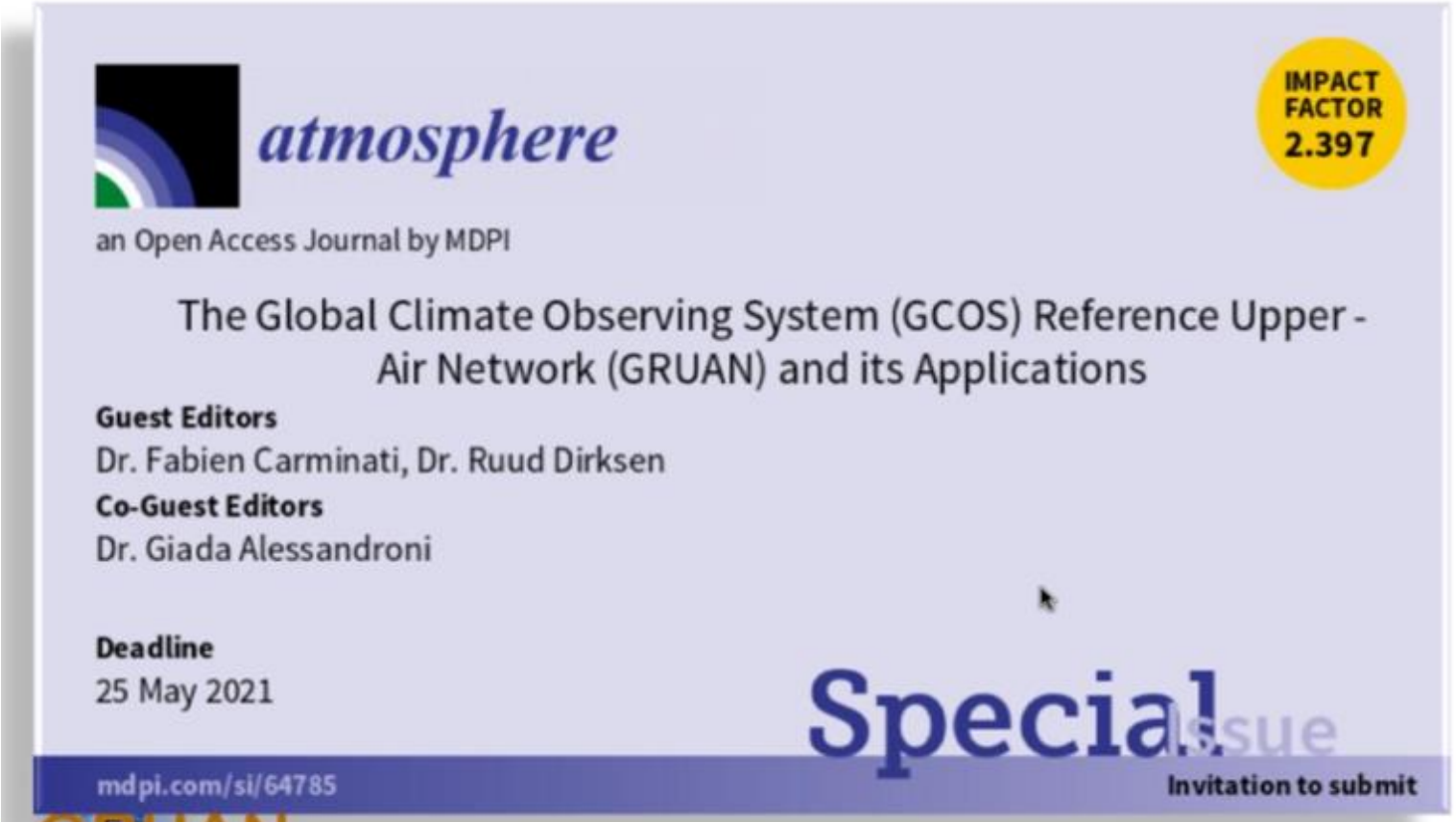
2 - 7 21:40 - 21:45 Graw (Ruud Dirksen)

2 - 9 21:45 - 22:00 Wrap up chair

Please send a summary (1-2 paragraphs) of your presentation to June Wang (jwang20@Albany.edu) by Nov 23, 2020

Special Issue Atmosphere (MDPI)

https://www.gruan.org/community/news/article/special-issue-of-mdpi-atmosphere-on-gruan



GRUAN Data Products

Deutscher Wetterdienst
Wetter und Klima aus einer Hand

Certified GRUAN data products

Vaisala RS92 v2
Meisei RS-11G v1

Certification in progress

GNSS-PW
Meisei IMS-100
Modem M10

GDP in development

Vaisala RS41
Graw DFM-09 & 17
ECC
Lidar
MWR

Path to GDP Certification

- GRUAN Technical Document
- Peer-reviewed paper
- Central data processing facility identified
- Trial run of data stream (beta)
- Data review

GDP	TD	PRP	CDP center	Beta	Data Review
GNSS-PW	TD-6	Tong et al (2016)	GFZ	Yes	Yes
RS41	In progress	In progress	LC	Yes	Yes?
IMS-100	TD-5	?	JMA	Yes	
M10	?	Dupoint et al (2020)	IPSL	Alpha 1	
Graw	?	?	LC		
Lidar			JPL?	Yes	
MWR					
ECC					

GRUAN Lead Centre

Data processing of radiosoundings

- Converting of original raw data files to NetCDF
  - RS92 (MWX, DC3DB) → @ LC (Lindenberg, DE)
  - RS41 (MWX) → @ LC
  - M10 → @ IPSL (Trappes/Palaiseau, FR)

- Processing of GRUAN Data Products (GDP)
  - RS92 GDP.2 → @ LC
  - RS41 BETA.1 (GDP.1 in prep.) → @ LC
  - RS-11G GDP.1 (GDP.2 in prep.) → @ JMA (Tateno, JP)
  - iMS-100 BETA.1 (GDP.2 in prep.) → @ JMA
  - M10 ALPHA.1 (GDP.1 in prep.) → @ IPSL

- Future GDPs
  - DFM-09 (experiments ongoing) → @ LC
  - DFM-17 (experiments ongoing) → @ LC

B1 Meisei IMS GDP product

TD completed, data stream in beta mode and paper submitted by time of ICM-12

TT Radiosondes (Meisei)

ICM-12

B2 Modem sonde GDP progression

Take steps necessary to further develop the Modem product (TD completion, uncertainty characterisation, papers); update to be given at ICM-12.

TT Radiosondes (Modem)
ICM-12

B3 GNSS-IWV GDP certification

TD finalized and the product certified and flowing from all qualified sites by year end

TT GNSS-PW; GFZ; Lead Centre; WG

TD resubmitted by TT and published July 2019
Certification package prepared by LC and sent to WG-Chairs Sept 2019
Certified product Nov 2019

B4 Ozonesondes GDP progression

Update on progress towards an Ozonesonde GDP to be given at ICM-12 including consideration of TD issues raised at ICM-11 and outcomes of further discussions with the community.

Richard Querel, WG Chairs
ICM-12

B5 Microwave Radiometer GDP progression

TT-AM to further progress the MWR product and present on progress at ICM-12

TT-AM
ICM-12

B6 Lidar GDP progression

Report on beta testing outcomes and progress of a v1 data stream at ICM-12. If beta testing shows no issues then aim to have finalised TD and be in a position to certify one or more initial lidar data streams.

TT-AM Thierry, Arnoud, Fabio
ICM-12

B7 Frostpoint hygrometer GDP progression

Provision of update on progress towards a GDP for frostpoints covering at a minimum: 1. whether a single version can be applied to all frostpoint techniques; 2. questions around the Voemel et al analysis raised at ICM-11

Frostpoint hygrometers ad hoc team
ICM-12

GRUAN data products

Deutscher Wetterdienst
Wetter und Klima aus einer Hand

- **Vaisala RS92 (2014)**
- **Meisei RS-11G (2019)**
- GNSS (GFZ & TT)*
- Under development (Tuesday & Friday sessions)
  - Vaisala RS41 (LC)
  - Modem Radiosonde (J-C Dupont)
  - Meisei iMS-100 (Shunsuke Hoshino)
  - Lidar (Thierry Leblanc)
  - MWR (Nico Cimini)
  - Ozone (Richard Querel)
  - Graw (LC)
  - CFH (Dale Hurst & LC)