

## Third MS-GWaves Workshop 10-12 January 2017 in Hofgeismar

### Tuesday 10 January

#### Session 1      *Chair: Kathrin Baumgarten*

- 09:00-09:15    Introduction (Ulrich Achatz)
- 09:15-09:40    Sonja Gisinger (GW-TP / ROMIC GW-LCycle): Atmospheric conditions during DEEPWAVE-NZ flow regimes - tropopause region - middle atmosphere
- 09:40-10:05    Peter Preusse/Cornelia Strube (SV/GW-LCYCLE – GLORIA): Resolved gravity waves in the ECMWF model: propagation and interpretation by ray-tracing
- 10:05-10:30    Irina Strelnikova (PACOG / ROMIC GW-LCycle ): Upward and downward propagating gravity waves as observed by Doppler wind and temperature lidar
- 10:30-11:00    *Break*

#### Session 2      *Chair: Jens Söder*

- 11:00-11:25    Kathrin Baumgarten (PACOG): Seasonal variation of gravity waves above Kühlungsborn and campaign results from LITOS above Scandinavia
- 11:25-11:50    Gunter Stober (PACOG:) Seasonal variations of mean winds and gravity waves due to SSW and recent developments to access spatially resolved wind fields
- 11:50-12:15    Benedikt Ehard (PACOG:) Comparing the ECMWF IFS to middle atmospheric lidar temperature measurements
- 12:15-13:00    *Lunch*
- 13:00-13:30    *PI Meeting*
- 13:30-14:30    *Walk*
- 14:30-14:45    *Coffee*

#### Session 3      *Chair: Steffen Hien*

- 14:45-15:10    Sebastian Borchert (GWING): UA-ICON - State of development: Dynamics
- 15:10-15:35    Hauke Schmidt (Guidi Zhou, GWING): UA-ICON - State of development: Physics
- 15:35-16:00    Christopher Pütz (GW-TP:) Transmission of gravity waves through non-uniform stratification
- 16:00-16:25    Vera Bense (GW-TP): Derivation of gravity wave transmission coefficients at the tropopause from numerical simulation
- 16:25-17:00    *Break*
- 17:00-18:00    Project meetings
- 18:00-19:00    *Dinner*

## Wednesday January 11

### Session 4      *Chair: Isabell Krisch*

- 09:00-09:25    Steffen Hien (SI): Spontaneous generation of IGWs in the rotating annulus experiment
- 09:25-09:50    Joran Rolland (SI): Testing of 3D troposphere-stratosphere numerical model systems
- 09:50-10:20    Lena Schoon (SI): Local diagnosis of gravity wave propagation  
Christoph Zülicke (SI): Parameterization of jet-generated gravity waves
- 10:20-10:55    *Break*

### Session 5      *Chair: Vera Bense*

- 10:55-11:20    Costanza Rodda (SI): Barostrat experiment: baroclinic wave tank in presence of salinity stratification
- 11:20-11:45    Ulrich Achatz (for Olga Kaiser) (SI): Data-Driven Sub-Grid-Scale Parametrization
- 11:45-12:10    Andreas Dörnbrack: Gravity Waves excited during a Minor Sudden Stratospheric Warming
- 12:10-13:00    *Lunch*
- 13:00-14:00    *Walk*
- 14:00-14:30    *Coffee*

### Session 6      *Chair: Costanza Rodda*

- 14:30-14:55    Gergely Bölöni (3DMSD) Towards the application of the WKB raytracer as a GW parametrization in ICON
- 14:55-15:20    Junhong Wei (3DMSD) Phase-Space WKB Modelling of Gravity Waves in Rotating Atmosphere
- 15:20-15:45    Mark Schlutow (3DMSD) Pseudo-incompressible, finite-amplitude gravity waves: wave trains, stability, and numerical validation
- 15:45-16:00    Discussion
- 16:00-16:30    *Break*

### Research-Area Meetings

- 16:30-18:00    in parallel:  
Meeting P (*chair Uwe Harlander*)  
Meeting D&I (*chair Peter Preusse*)
- 18:00-19:00    *Dinner*

**Thursday Jan 12**

General Discussions    Chair: Ulrich Achatz

*s&d 30min+30min each*

09:00-10:00    Summary & discussion Research Area P

*10:00-10:30    Break*

10:00-11:00    Summary & discussion Research Area D&I

11:00-12:00    General discussion

12:00-13:00    Lunch

*13:00            End of Workshop*