# 2<sup>nd</sup> Early Career Scientists Workshop June 6-9<sup>th</sup> 2016, Kaub

# Program

### Monday, June 6th

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13:00 - 14:00	Light lunch		
14:00 - 14:15	Welcome		
14:15 - 15:45	Talks (12 min + 3 min discussion) A1- Theoretical aspects of upscale error growth on the mesoscales (Lotte Bierdel) A1 - Predictability experiments with ICON (Tobias Selz) A1 - Potential vorticity dynamics of forecast errors (Marlene Baumgart) A1 - Local Finite Amplitude Wave Activity as diagnostic for Rossby Waves packets (Paolo Ghinassi) A2 - A comparison of different cloud models (Juliane Rosemeier) A2 - The Euler equations coupled with a cloud model (Bettina Wiebe)		
15:45 - 16:15	Coffee Break		
16:15 - 17:45	Talks (12 min + 3 min discussion) A4 - Storm structure during extratropical transition (Christian Euler) A4 - Storm structure during extratropical transition (Tobias Kremer) A5 - The role of soil moisture and surface- and subsurface water flows on predictability of convection (Joel Arnault) A6 - Stochastic boundary layer perturbations to improve the representation of convective initiation (Stephan Rasp) A6 - Representing forecast uncertainty with physically-based stochastic perturbations (PSP) in the boundary layer (Fabian Brundke) A7 - Interactive 3D Visualization of Clouds (Theresa Diefenbach)		
18:30 - 20:00	BBQ		

### Tuesday, June 7<sup>th</sup>

09:00 - 10:30	Talks (12 min + 3 min discussion) A Subcritical Percolation Model for Shallow Cumulus Clouds (Julia Mack) B1 - Idealized simulations of deep convective clouds (Constanze Fischerkeller) B3 - Relative impact of surface and aerosol heterogeneities on the initiation of deep convection (Linda Schneider) B3 - Precipitation sensitivity on land-surface heterogeneities (Florian Baur) B4 - Radiative heating and cooling at cloud scale and its impact on dynamics (Mares Barekzai) B4 - Atmospheric radiation and its impact on weather (Nina Crnivec)
10:30 - 11:00	Coffee Break
11:00 - 12:30	<u>Talks</u> (12 min + 3 min discussion) B6 - Parameter estimation using the ensemble Kalman filter approach (Yvonne Rockstuhl)

	B7 - Online parameter identification on a cloudmodel (Nikolas Porz) C2 - Dynamics of dry and wet spells of the West African Monsoon (Andreas Schlüter) C3 - Dynamics and predictability of three Medicane case studies (Enrico DiMuzio) C3 - Predictability of Tropical Transition in the North Atlantic Ocean (Michael Meier-Gerber) C5 - Predictability of winter storms (Florian Pantillon)
12:30 - 13:30	Lunch
13:30 - 14:00	Introduction to Git and the W2W Gitlab Code Repository Server (Robert Redl)
14:00 - 15:00	From Python to COSMO <sup>(1)</sup> . Part I: Implementation of a Simple Diagnostic in Python (Robert Redl)
15:00 - 15:30	Coffee Break
15:30 - 17:00	From Python to COSMO <sup>(1)</sup> . Part II: Visualization of COSMO Output using Python and COSMO-Utils (Heiner Lange)
18:00 - 19:00	Dinner

# Wednesday, June 8<sup>th</sup>

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09:00 - 10:30	From Python to COSMO <sup>(1)</sup> . Part III: Identifying Slow Code Sections and Implementing them in FORTRAN (Robert Redl)
10:30 - 11:00	Coffee Break
11:00 - 12:30	From Python to COSMO <sup>(1)</sup> . Part IV: General Structure of the COSMO Model (Uli Blahak)
12:30 - 13:30	Lunch
13:30 - 15:00	From Python to COSMO <sup>(1)</sup> . Part V: Improving Performance by Implementation of the Diagnostic in COSMO (Uli Blahak)
15:00 - 19:30	Hiking to Lorch
19:30 - 22:00	Dinner and wine tasting in Lorch

# Thursday, June 9<sup>th</sup>

09:00 - 10:45	Talks (12 min + 3 min discussion)
	C4 - The connection between Northern Hemisphere heat waves and large-amplitude
	quasi-stationary Rossby wave packets (Georgios Fragkoulidis)
	C4 - Synoptic and Mesoscale Dynamics of European heat waves (Pila Bossmann)
	C7 - Probabilistic forecasting and comparative model assessment based on
	ensembles (Sebastian Lerch)
	C2 - Postprocessing for precipitation forecasts over West Africa (Peter Vogel)
	A1 - Parameter Tuning in the Plant-Craig Stochastic Convection Scheme (Anne
	Martin)
	A2 – A dynamical system approach to cirrus clouds (Elisa Spreitzer)
	Predictability of Convective Scales: Influence of synoptic forcing and orography
	(Kevin Bachmann)

10:45 - 11:15	Coffee Break
11:15 - 12:30	Final discussion

<sup>(1)</sup> This session contains practical sections.

#### **Practical information**

The workshop is located in Haus Elsenburg in Kaub (<u>www.haus-elsenburg.de</u>). The accommodation is not far away from the station, but you have to walk a bit uphill. Contact <u>Marlene</u> if you have a lot of baggage and want to be picked up at the station.



