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2nd ICTP Summer School on Theory, Mechanisms and Hierarchical Modelling of Climate Dynamics: Convective Organization and Climate Sensitivity | (smr 3304)

Monday 01 July 2019

notitle - Kastler Lecture Hall (AGH) (08:00-21:30)

time	title	presenter
08:00	Registration - administrative formalities	
10:00	INTRODUCTION TO CLIMATE	HOHENEGGER, Cathy
11:20	INTRO - the radiative equation, interaction with a slab - interaction with atmosphere gases, line broadening mechanisms - interaction with clouds - methods to model radn, 2 stream, 6 stream, 3D models, Monte Carlo, Spherical harmonic	PINCUS, Robert
12:40	lunch	
14:00	THERMODYNAMICS INTRO	BORDONI SIMONA
14:45	CONVECTION INTRO	TOMPKINS, Adrian
15:30	coffee break	
16:00	Manual classification of Shallow convection organisation	MULLER CAROLINE / TOMPKINS ADRIAN
18:00	Ice breaker	

Tuesday 02 July 2019

notitle - Kastler Lecture Hall (AGH) (09:00-17:00)

time	title	presenter
09:00	CLOUD RESOLVING MODELS	WING, Allison
10:30	coffee break	
11:00	METRICS OF CONVECTIVE ORGANISATION	SEMIE GEZAHEGN, Addisu
12:30	lunch	
14:00	lab session - RCEMIP	
15:30	coffee break	
16:00	lab session	

Wednesday 03 July 2019

notitle - Kastler Lecture Hall (AGH) (09:00-17:00)

time	title	presenter
09:00	CONVECTIVE PARAMETRIZATION	HOHENEGGER, Cathy
10:30	coffee break	
11:00	CONVECTIVE ORGANISATION IN GLOBAL MODELS	HOLLOWAY, Chris
12:30	lunch	
14:00	lab session	
15:30	coffee break	
16:00	lab session	

Thursday 04 July 2019

notitle - Kastler Lecture Hall (AGH) (09:00-17:00)

time	title	presenter
09:00	IMPLICATIONS OF AGGREGATION FOR CLIMATE	HOLLOWAY, Chris
10:30	coffee break	
11:00	CONVECTIVE SUPER -PARAMETRIZATION	GRABOWSKI, Wojciech
12:30	lunch	
14:00	lab session	
15:30	coffee break	
16:00	lab session	

Friday 05 July 2019

notitle - Kastler Lecture Hall (AGH) (09:00-17:00)

time	title	presenter
09:00	Observations of convection organisation	BIASUTTI, Michela
10:30	coffee break	
11:00	convection organisation on an acqua planet - theory of monsoons	BORDONI, Simona
12:30	lunch	
14:00	lab session	
15:30	coffee break	
16:00	lab session	

Monday 08 July 2019

Introduction and Motivation - Kastler Lecture Hall (AGH) (09:00-16:00)

time	title	presenter
09:00	Introduction motivation and meet the lecturers session on the terrace with coffee	TOMPKINS, Adrian
10:00	What is Convective Aggregation and how can we measure it?	WING, Allison
10:45	Fields, entities, and ecosystems: how can we best understand convection and its organization?	MAPES, Brian
11:30	Convection aggregation in global convection permitting models	KHAIROUTDINOV, Marat
12:15	lunch break	
13:45	Introduction to lecturers and general poster session on Leonardo building Terrace (building change!)	
15:15	coffee break	

ICTP COLLOQUIUM - Budinich Lecture Hall, Leonardo Building - (16:00-18:00)

for details see Colloquium website under link;

<http://indico.ictp.it/event/8950/>

time	title	presenter
16:00	Clouds in the climate system, why so much uncertainty?	BONY, Sandrine
16:30	Will our weather extremes become even more extreme?	EMANUEL, Kerry
17:00	Beyond Global Warming	STEVENS, Bjorn

notitle - Kastler Lecture Hall (AGH) (18:00-20:00)

time	title	presenter
18:00	Welcome reception	

Tuesday 09 July 2019

Aggregation in observations - Kastler Lecture Hall (AGH) (09:00-18:30)

time	title	presenter
09:00	short overview of themes	HOLLOWAY, Chris
09:15	Do observations matter? [subtitle: are we developing ideas that can be tested outside of the frameworks in which they were developed?] Observations matter and are underutilized	TOMPKINS, Adrian
09:45	Do observations matter? [subtitle: are we developing ideas that can be tested outside of the frameworks in which they were developed?] Observations are largely irrelevant	STEVENS, Bjorn
10:15	open discussion	
10:30	coffee break	
11:00	Our understanding of how SST impacts aggregation remains poor	BONY, Sandrine
11:30	Our understanding of how SST impacts aggregation might be better than we think	CRONIN, Timothy
12:00	open discussion	
12:30	lunch + teams	
16:00	Panel leaders summary	
17:30	Have convection modellers ignored basic theory, and does it matter?	VALLIS, Geoffrey

Wednesday 10 July 2019

Alternative mechanisms for aggregation - Kastler Lecture Hall (AGH) (09:00-18:30)

time	title	presenter
09:00	short overview of themes	HOHENEGGER, Cathy
09:15	Cloud-radiative feedback are key, and especially shallow convection-radiation is important for aggregation	MULLER, Caroline
09:45	Self aggregation is driven by buoyancy heterogeneities in the boundary layer	YANG, Da
10:15	open discussion	
10:30	coffee break	
11:00	Convection-water vapour feedback is key to organisation	EMANUEL, Kerry
11:30	Turbulence subgrid parameterizations are key to aggregation occurrence	CHABOUREAU, Jean-Pierre
12:00	open discussion	
12:30	lunch + team work	
16:00	Panel leaders summary	
17:30	why microphysics in CRMs can not be trusted	GRABOWSKI, Wojciech

Thursday 11 July 2019

Are CRM models trustable? - Kastler Lecture Hall (AGH) (08:45-18:30)

time	title	presenter
09:00	short overview of themes	MULLER, Caroline
09:15	Do cloud permitting model represent cloud-radiative-dynamical interactions adequately? (dynamical = larger scale circulations) - No	PINCUS, Rob
09:45	Do cloud permitting model represent cloud-radiative-dynamical interactions adequately? (dynamical = larger scale circulations) - Yes	ZUIDEMA, Paquita
10:15	discussion	
10:30	coffee break	
11:00	Subgrid parameterizations of climate models need to represent aggregation - Yes	MONCRIEFF, Mitch
11:30	Subgrid parameterizations of climate models need to represent aggregation - No	KHOUIDER, Boualem
12:00	discussion	
12:15	lunch + team work	
16:00	Panel leaders summary	
17:30	Unforced Errors	RANDALL, David

notitle - Kastler Lecture Hall (AGH) (20:00-22:30)

time	title	presenter
20:00	dinner in town	

Friday 12 July 2019

notitle - Kastler Lecture Hall (AGH) (09:00-12:30)

time	title	presenter
09:00	short overview of themes	BIASUTTI, Michela
09:15	Can simple models from statistical mechanics shed light into self-aggregation, or are detailed fluid dynamics including boundary-layer structures crucial? - simple models	CRAIG, George
09:45	Can simple models from statistical mechanics shed light into self-aggregation, or are detailed fluid dynamics including boundary-layer structures crucial? - fluid dynamics	SHERWOOD, Steve
10:15	discussion	
10:30	coffee break	
11:00	General discussion - aggregation, whither, whence and why?	
	- Discussion of potential special issue, paper writing and future ICTP meetings/sessions	