

H2O Winter School

9.-13. December 2024

Program

Monday 9.12.		
09:45	<i>Meeting at Bergen bus station platform O</i>	
09:55-11:02	<i>Bus from Bergen to Wallemtnet</i>	
12:00-13:00	<i>Lunch</i>	
13:00-13:15	Introduction to H2O winter school and logistics	Thomas Spengler
13:15-14:00	Fresh water & ocean density & sea ice-brine rejection	Elin Darelius
14:00-14:45	Sea ice physics and its role in climate	Guillaume Boutin
14:45-15:15	<i>Coffee break</i>	
15:15-16:00	Fundamentals of ocean overturning	Andreas Klocker
16:00-16:45	Ice shelf melt (basal melt)	Elin Darelius
17:15-18:30	Icebreaker	
18:30-20:00	<i>Dinner</i>	

Tuesday 10.12.		
07:30-08:30	<i>Breakfast</i>	
08:30-09:15	Introduction to Glaciers	Ugo Nanni
09:15-10:00	Ice sheet basics (rheology, sliding, hydrology, calving)	Dave Chandler
10:00-10:30	<i>Coffee break</i>	
10:30-11:15	Glacier-seismology with focus on glacial hydrology	Ugo Nanni
11:15-12:00	General circulation of the Atmosphere	Thomas Spengler
12:00-13:00	<i>Lunch</i>	
13:00-13:45	Modelling oceans	Andreas Klocker
13:45-14:30	Modelling sea ice: thermodynamics vs dynamics?	Guillaume Boutin
14:30-15:00	<i>Coffee break</i>	
15:00-15:45	Evaporation and moisture sources	Harald Sodemann
15:45-16:30	Precipitation and Precipitation types	Mareile Wolff
16:30-18:30	Poster session	
18:30-20:00	<i>Dinner</i>	
20:00-21:00	Introduction to practical sessions on ESM output	Harald Sodemann

Wednesday 11.12.		
07:30-08:30	<i>Breakfast</i>	
08:30-09:15	Cloud formation: small particles, big effect	Tim Carlsen
09:15-10:00	Measuring Precipitation, focus on ground-based instruments and radar	Mareile Wolff
10:00-10:30	<i>Coffee break</i>	
10:30-11:15	Atmospheric Rivers and precipitation extremes	Harald Sodemann
11:15-12:00	Hydrological Modeling: Fundamentals and Flood Applications	Lu Li
12:00-13:00	<i>Lunch</i>	
13:00-13:45	How can we reconstruct past changes in the water cycle?	Nele Meckler
13:45-14:30	Uncertainty in Hydrological Models and extremes	Lu Li
14:30-15:45	<i>Extended coffee break and free time</i>	
15:45-16:30	Response of glacier to atmospheric warming and the impact for downstream areas and water resources	Ugo Nanni
16:30-18:30	Poster session	
18:30-20:00	<i>Dinner</i>	
20:00-21:00	Lecture and debate: Ice sheets past, present & future	Dave Chandler

Thursday 12.12.		
07:30-08:30	<i>Breakfast</i>	
08:30-09:15	From crystals to climate: ice formation in clouds	Tim Carlsen
09:15-10:00	Challenges when measuring precipitation	Mareile Wolff
10:00-10:30	<i>Coffee break</i>	
10:30-11:15	Long-term changes in low-latitude hydroclimate (monsoon, ITCZ)	Nele Meckler
11:15-12:00	Modelling ice sheets	Dave Chandler
12:00-13:00	<i>Lunch</i>	
13:00-13:45	Remaining challenges in sea ice modelling (small scale dynamics, Marginal Ice Zone)	Guillaume Boutin
13:45-14:30	Air-Sea heat exchange and impact on atmosphere	Thomas Spengler
14:30-16:00	<i>Extended coffee break and free time</i>	
16:00-18:30	Practical session on ESM output	Harald Sodemann
18:30-20:00	<i>Dinner</i>	
20:00-21:00	Lecture and debate: Collapse of the ocean overturning	Andreas Klockner

Friday 13.12.		
07:30-08:30	<i>Breakfast</i>	
08:30-09:15	Clouds in a changing climate	Tim Carlsen
09:15-10:00	Tracers in the water cycle	Harald Sodemann
10:00-10:30	<i>Coffee break</i>	
10:30-11:30	Student presentations on ESM output analysis	Harald Sodemann
11:30-12:00	Closing remarks and check out	Thomas Spengler
12:00-13:00	<i>Lunch</i>	
13:13-14:25	<i>Bus from Wallemtnet to Bergen</i>	

Participants:

Name - First	Name - Last	Email
Birgit	Rinde	birgit.rinde@uib.no
Costijn	Zwart	costijn.zwart@uib.no
Eirik	Ballo	e.g.ballo@geo.uio.no
Hao	Ding	hao.ding@uib.no
Ina	Nagler	ina.nagler@uib.no
Julia	Steckling	julia.steckling@uib.no
Laura	Mack	laura.mack@geo.uio.no
Mari	Steinslid	mari.steinslid@uib.no
Philipp	Voigt	philipp.voigt@uib.no
Sanaz	Zarif Mahdizadeh	sanaz.mahdizadeh@uib.no
Sophia	Groninger	sophiag@met.no
Thorbjørn Østenby	Moe	thorbjorn.moe@uib.no
Torbjørn	Venstad	torbjorgv@met.no

Lecturers:

Name - First	Name - Last	Email
Andreas	Klocker	ankl@norceresearch.no
Dave	Chandler	dcha@norceresearch.no
Elin	Darelius	elin.darelius@uib.no
Guillaume	Boutin	guillaume.boutin@nersc.no
Harald	Sodemann	harald.sodemann@uib.no
Lu	Li	luli@norceresearch.no
Mareile	Wolff	mareile.astrid.wolff@nmbu.no
Nele	Meckler	nele.meckler@uib.no
Thomas	Spengler	thomas.spengler@uib.no
Tim	Carlsen	tim.carlsen@geo.uio.no
Ugo	Nanni	ugo.nanni@geo.uio.no