	Monday, 27.05	Tuesday, 28.05	Wednesday, 29.05	Thursday, 30.05
09:00-09:15		**Hongmei Li: "Extending Climate Predictions to Earth System Perspectives on the Carbon Cycle" (keynote)**	Sebastian **Brune:** "Climate reconstruction and climate predictions in the North Atlantic with MPI-ESM"	
09:15-09:30			Stefano **Materia:** "Data-driven seasonal forecast of heat waves in Western Europe"	Meetings for moderators and note-takers to prepare wrap-up session
09:30-09:45		**Yong-Yub** Kim: Ocean circulation constrains multi-year predictability of marine biogechemical system - online	**Steve Yeager: "Recent Developments in Climate Prediction using High-Resolution Models" (keynote) -online**	Parallel I4C WP meetings - tbc
09:45-10:00		Roberto **Bilbao:** Impact of volcanic eruptions on CMIP6 decadal predictions in the North Atlantic.		
10:00-10:15		Parallel break-out sessions : pitches followed by targeted discussion. Topics and pitch distribution on separate page of programme. Take break when convenient (max. 30min).	Akhilesh **Nair:** "Improving subseasonal forecast skill in the Norwegian Climate Prediction Model using soil moisture data assimilation"	Plenary presentation of discussion sessions wrap-ups
10:15-10:30			Wieslaw **Maslowski:** "Advancing Arctic Climate Prediction Capability at Subseasonal to Decadal Timescales"	
10:30-10:45			BREAK	
10:45-11:00				
11:00-11:15			Markus **Donat:** "Improving the forecast quality of near-term climate projections by constraining internal variability based on decadal predictions and observations"	
11:15-11:30			Rémy **Bonnet:** "Constraining near to mid-term climate projections by combining observations with decadal predictions"	
11:30-11:45			**Eric Kolstad: "A case for transcending disciplines and sectors, based on experiences from Climate Futures and Africa" (keynote)**	
11:45-12:00				
12:00-12:15	LUNCH **-START**		Sam **Pickard:** "Tools for facilitating co-production with urban stakeholders: Communicating via a catalogue of (urban climate) services"	LUNCH **- END**
12:15-12:30			Dragana **Bojovic:** "Reimaging the scale in climate service"	
12:30-12:45		LUNCH	LUNCH	
12:45-13:00				
13:00-13:15	Welcome and introduction to workshop			
13:15-13:30	**Rong Zhang: "Understanding low-frequency AMOC variability and associated predictability over the Atlantic-Arctic region" (keynote)**			
13:30-13:45		**Jing-Jia Luo: "Use of AI deep learning for climate forecasts" (keynote)**	Ole **Wulff**: "Co-producing streamflow forecasts useful for decision-making"	
13:45-14:00	Virna **Meccia:** Extreme cold events in Europe under a reduced AMOC		**Asun Lera St. Clair: "The next step for climate services"**	
14:00-14:15	Quan **Liu:** The North Atlantic Oscillation gets more extreme under global warming	Christine **Sgoff:** "Weakly coupled data assimilation for climate predictions with ICON-Seamless"		
14:15-14:30	David **Docquier**: Identifying causes of Arctic sea-ice extent reduction in CMIP6 large ensembles using information transfer	Iuliia **Polkova:** "Initialization shock in the ocean circulation reduces skill in decadal predictions of the North Atlantic subpolar gyre"	Ingrid **Vigna**: "What is the role of seasonal and sub-seasonal forecasts in farmers' decision processes? A serious game approach"	

	Monday, 27.05	Tuesday, 28.05	Wednesday, 29.05	
14:30-14:45	Luca **Famooss Paolini:** Non-stationary NAO–Gulf Stream SST front interaction	Francine **Schevenhoven:** "Supermodeling: an ensemble of interacting models"	Eren **Duzenli**: "Preparing for extremes: downscaling subseasonal climate predictions for understanding heat wave risks at Paris Olympics"	
14:45-15:00	Christopher **O'Reilly:** Signal-to-noise problems in winter Euro-Atlantic predictions linked to pervasive North Atlantic jet biases	Yiguo **Wang:** "CoRea-20CR: coupled reanalysis of the climate from 1860 to the present"	Sebastiano **Roncoroni**: "Statistical downscaling of extremes in seasonal predictions - a case study on spring frosts for the viticultural sector"	
15:00-15:15	BREAK	BREAK	Sofía **Fernández Álvarez**: "OceansforFuture: Communicating with society the changes in ocean impacts on climate"	
15:15-15:30			BREAK	
15:30-15:45	Leon **Hermanson:** Why do recent decadal predictions show large errors in the North Atlantic? -online	Parallel break-out sessions : continued targeted discussions and writing groups. Topics and pitch distribution on separate page of programme.		
15:45-16:00	Helene R. **Langehaug:** Marine heatwaves: Can we predict them in the Barents Sea?		Parallel break-out sessions : Continued targeted discussion and writing groups. Topics distribution on separate page of programme.	
16:00-16:15	Hongdou **Fan:** Delayed and transient impacts of the NAO on subdecadal variability of Norwegian Sea temperature			
16:15-16:30	Lara **Wallberg:** Improved Prediction Skill of Extremly Warm European Summers			
16:30-16:45	Claudia **Simolo:** Heat extremes in scenario projections: the role of variability			
16:45-17:00	Jakob **Dörr:** Forced and internal components of Arctic sea ice changes			
17:00-17:30				
17:30-18:00	TBC Social programme: Guided tour of Natural History Museum. Registration mandatory, see workshop webpages.	TBC Social programme: Escape game at Fangene på Fortet. Registration mandatory, see workshop webpages.	Society, Business & Science Side-Event (Kulturhuset i Bergen, Vaskerelven 8)	TBC Social programme: Geophysical Institute and GALE brewery visit. Registration mandatory, see workshop webpages.
18:00-18:30				
18:30-19:00	Workshop Icebreaker (Christie, Naturhistorisk museum, Muséplassen 3)			
19:00-19:30				
19:30-20:00		Workshop Dinner (Søtt + Salt Lanternen, Marineholmen, Thormølensgate 51B)		
20:00+				

Preliminary distribution of topics and pitches (may change slightly)

	in-person		
	online		
	Tuesday, 10:00-12:30	**Tuesday, 15:45-17:00**	**Wednesday, 16:00-17:00**
Room 1	**Topic:** **Part 1: Remote links and impacts of the North-Atlantic-Arctic region** **Part 2: Role of forced versus internal variability in driving climate variations and extremes over the North Atlantic-Arctic Region** - Arctic sea-ice changes - Atmospheric and oceanic extremes - AMV (forced vs internal, representation and impacts)		
	Moderators (Bergen): coming soon Rapporteurs (Bergen): coming soon Moderators (Online): coming soon Rapporteurs (Online): coming soon	Moderators (Bergen): coming soon Rapporteurs (Bergen): coming soon Moderators (Online): coming soon Rapporteurs (Online): coming soon	Moderators (Bergen): coming soon Rapporteurs (Bergen): coming soon Moderators (Online): coming soon Rapporteurs (Online): coming soon
	10:00-10:15: set-up zoom, find room and sit down, welcome and introducing session (topic, goals, house-keeping rules)		
	10:15-11:35: 14 pitches (5 min per pitch + 10min total for switching)		
	#32, Conditional impacts of the North Atlantic SST anomaly on the Asian winter climate, Yu (online)		
	#33, Impact of northern tropical Atlantic SST on Northeast China spring precipitation and the prediction biases of such impact in the dynamic model, Zhang (online)		
	#43, Atlantic Niño as predictor for California Upwelling Ecosystem, Rodriguez-Fonseca		
	#45, Important changes in the ENSO teleconnection to the North Atlantic-European sector in the last decades and its implications on temperature predictability, Fernández-(		
	#48, Going beyond the traditional pacemaker experiment approach to evaluate the role of the Atlantic in the global climate variability during the historical era, Ruprich-Robe		
	#53, Characterizing Atlantic interhemispheric teleconnection established by South American monsoon in austral summer, Tseng		
	#2, Origins of Barents-kara sea ice interannual variability modulated by the Atlantic pathway of ENSO, Luo	Brief summary of previous discussion.	Brief summary of previous discussion.
	#28, Variability and seasonal predictability of precipitation in the Iberian Peninsula with special focus on mountain areas, García-Maroto	Writing session in smaller groups to synthesize.	Writing session in smaller groups to synthesize.
	#11, Impact of AMV on rainfall intensity distribution and timing of the West African Monsoon in DCPP-C-like simulations, Mohino (online)		
	#60, Decadal predictions outperform projections in forecasting winter precipitation over the Mediterranean region, Nicoli (online)		
	#72, Atmospheric patterns over the North Atlantic and their links to European precipitation in CMIP6 climate models, Outten		
	Part 2:		
	#10, The impact of sea ice thickness biases on the projected sea ice declining speed: insights from CMIP6 ensemble experiments, Tian (online)		
	#35, Separation of internal and forced variability using a U-Net, Gastineau		
	#77, Sea ice loss drove rapid Arctic warming in the early 20th century, Li		
	11:35-12:30: moderated discussion and note-taking		
	Tuesday, 10:00-12:30	**Tuesday, 15:45-17:00**	**Wednesday, 16:00-17:00**
Room 2	**Topic:** **Part 1: Atmosphere-Ocean interaction** - Mechanisms underlying predictability - Role of oceanic and atmospheric resolution **Part 2:** - What is the benefit of increasing or using high model resolution on climate predictions? - How to balance model resolution and ensemble size? - Is downscaling beneficial? - How to extend the prediction skill beyond 10 years (decadal timescale), initialisation/blending,...? **Part 3: Biogeochemical and ecosystem predictions (CO2 fluxes/phytoplankton)** - Mechanisms of biogeochemical predictability - Can we improve the predictive skill? + Role of high resolution for BGC prediction + Improved BGC models/parameterizations - Why is there more skill when comparing CPMs to assimilation runs than to observational data (satellite chlorophyll)? - Link to climate services + marine ecosystem prediction + carbon budget / emission mitigation		
	Moderators (Bergen): coming soon Rapporteurs (Bergen): coming soon Moderators (Online): coming soon Rapporteurs (Online): coming soon	Moderators (Bergen): coming soon Rapporteurs (Bergen): coming soon Moderators (Online): coming soon Rapporteurs (Online): coming soon	Moderators (Bergen): coming soon Rapporteurs (Bergen): coming soon Moderators (Online): coming soon Rapporteurs (Online): coming soon
	10:00-10:15: set-up zoom, find room and sit down, welcome and introducing session (topic, goals, house-keeping rules)		
	10:15-11:35: 14 pitches (5 min per pitch + 10min total for switching)	Brief summary of previous discussion.	Brief summary of previous discussion.
	Part 1:	Writing session in smaller groups to synthesize.	Writing session in smaller groups to synthesize.
	#14, Decadal predictability of seasonal temperature distributions, Düsterhus		

Room 2 ctd.	Tuesday, 10:00-12:30	Tuesday, 15:45-17:00	Wednesday, 16:00-17:00
	#38, The relationship between SST gradients and ocean heat content along the Gulf Stream and the 250mb Jet Stream, Hallam		
	#68, Causal Oceanic Feedbacks onto the Winter NAO, Kolstad		
	#79, Comparing Northern Hemisphere Polar Vortex Dynamics in Climate Change and Weak Vortex Events: Implications for Tropospheric Climate and Seasonal Prediction, Om		
	#82, The subpolar gyre induces predictability to the NE Atlantic, Hátún (online)		
	#17, Understanding the predictability of the winter North Atlantic Oscillation using dynamical seasonal forecast models and machine learning techniques, Baker		
	Part 2:		
	#26, High resolution global climate simulations with locally refined ocean mesh, Semmler		
	#81, Skillful prediction of the 2015 record summer "Cold Blob" in the subpolar North Atlantic with the MPI-ESM "eddy-resolving" climate prediction system, Lohmann (online	Brief summary of previous discussion.	Brief summary of previous discussion.
	#15, Ocean Heat Transport in Met Office Models – is it all about resolution?, Roberts		
	#61, ICON-Seamless: Towards an integrated model configuration for numerical weather prediction, climate predictions and projections, Mueller	Writing session in smaller groups to synthesize.	Writing session in smaller groups to synthesize.
	#94, Assessing observational constraints on future European climate in an out-of-sample framework, O'Rielly		
	Part 3:		
	#47, Predicting chlorophyll-a in the tropical Atlantic from SST information, Calvo Miguélez		
	#62, Phytoplankton predictability in the Tropical Atlantic - triggered by nutrient pulses from the South?, Fransner		
	#92, On predictability of surface phytoplankton and its physical/biogeochemical drivers in the Tropical and South Atlantic, Rivas (online)		
	11:35-12:30: moderated discussion and note-taking		
	Tuesday, 10:00-12:30	**Tuesday, 15:45-17:00**	**Wednesday, 16:00-17:00**
Room 3	**Topic:** **Part1:** - How to improve the prediction of extreme events? - Understanding, achieving and improving predictions of climate variations and extremes over the North Atlantic - Arctic region + definition of extremes + quantifying what is dangerous **Part2: How to handle model deficiencies (signal-to-noise issue, model bias, model calibration,etc) and improve initialisation?** **Part3: How to make use of machine learning to enhance climate predictions, applications and services?** - How to make use of Machine learning in enhancing climate predictions? - What is the role for AI, ML-DL in climate services? Opportunity or threat?Democratizing force or reinforcing inequities? Is data-driven inherently better?		
	Moderators (Bergen): coming soon Rapporteurs (Bergen): coming soon Moderators (Online): coming soon Rapporteurs (Online): coming soon	Moderators (Bergen): coming soon Rapporteurs (Bergen): coming soon Moderators (Online): coming soon Rapporteurs (Online): coming soon	Moderators (Bergen): coming soon Rapporteurs (Bergen): coming soon Moderators (Online): coming soon Rapporteurs (Online): coming soon
	10:00-10:15: set-up zoom, find room and sit down, welcome and introducing session (topic, goals, house-keeping rules)		
	10:15-11:55: 18 pitches (5 min per pitch + 10min total for switching)		
	Part 1:		
	#57, Modelling sub-daily precipitation extremes with the blended generalised extreme value distribution, Vandeskog		
	#78, Predicting Intense Marine Heatwaves in Northern Seas (PRIMA), Williams-Kerslake		
	#89, Extreme Arctic sea ice lows investigated with a rare event algorithm, Sauer		
	#76, Future climate change impacts of an AMOC weakening on extreme precipitation in East of NorthEast Brazil by inter-model differences, Oliveira (online)	(pitching if previous session split in parts)	
	#51, Hybrid statistical-dynamical seasonal prediction of summer extreme temperatures over Europe, Famooss		Brief summary of previous discussion.
	Part 2:	Summary of previous discussion.	
	#21, Adaptive covariance hybridization for coupled climate reanalysis, Barthélémy	Writing session in smaller groups to synthesize.	Writing session in smaller groups to synthesize.
	#31, Initializing hindcasts with ensemble optimal interpolation: challenges and opportunities, Torres (online)		
	#63, Ensemble based parameter estimation for improving Ocean Biogeochemistry in an Earth System Model, Singh		
	#74, Enhancing sea ice prediction in NorCPM using assimilation of sea ice thickness from ENVISAT and C2SMOS, Williams		
	#90, Intercomparison of initialization methods for Seasonal-to-Decadal Climate Predictions with the NorCPM, Garcia		
	#96, Recent development of NorCPM software structure, Chiu		
	#56, A perfect-model perspective on the signal to noise paradox in initialized climate predictions, Mahmood		
	Part 3:		
	#20, Hybrid covariance super-resolution data assimilation, Barthélémy		
	#41 Deep Learning methods for increased wintertime Sea Level Pressure predictability, Fraile		
	#49, Predicting Atlantic and Benguela Niño events with deep learning, Bachéléry		
	#59, Improving dynamical seasonal sea ice prediction in the Arctic with machine learning, He		
	#66, Supermodelling Towards Improved Climate Prediction, Keenlyside		
	#84, Evaluating AI's role in addressing biases in IPSL climate predictions, Alkama (online)		
	11:55-12:30: moderated discussion and note-taking		

	Tuesday, 10:00-12:30	Tuesday, 15:45-17:00	Wednesday, 16:00-17:00
Room 4	**Topic:** **Part1:** How can we address the gap between climate information production and its use by "flipping the script" from traditional top-down approaches to a bottom-up perspective? **Part2:** Neighborhood-scale", "convection-permitting", "sub-daily"; as we move to ever finer scales (in time and space) what are the limits to the effective resolution of climate information we provide and how do we responsibly communicate this?		
	Moderators (Bergen): coming soon Rapporteurs (Bergen): coming soon Moderators (Online): coming soon Rapporteurs (Online): coming soon	Moderators (Bergen): coming soon Rapporteurs (Bergen): coming soon Moderators (Online): coming soon Rapporteurs (Online): coming soon	Moderators (Bergen): coming soon Rapporteurs (Bergen): coming soon Moderators (Online): coming soon Rapporteurs (Online): coming soon
	10:00-10:15: set-up zoom, find room and sit down, welcome and introducing session (topic, goals, house-keeping rules)		
	10:15-11:20: 11 pitches (5 min per pitch + 10min total for switching)		
	#16, Seasonal Forecasts for Resilient Food Systems - The Co-production of Climate Services for Norwegian Agriculture, Hempel		
	#39, OceansforFuture: Innovating climate services using ocean information and communication with society (OFF), Polo Sanchez		
	#50, From Super Users to a Community of Practice: bringing seamless climate information into mainstream decision making, Terrado		
	#65, Co-production of multi-annual climate services to support food and wine production resilience, Delgado		
	#85, Can we make nature-based solutions more climate resilient? Co-producing climate services for tree planting in two Catalonian municipalities, Trascasa-Castro	Brief summary of previous discussion.	Brief summary of previous discussion.
	Part 2:		
	#1, Unlocking micro-climate services with a urban integrated modeling system, Ezau	Writing session in smaller groups to synthesize.	Writing session in smaller groups to synthesize.
	#24, Accuracy versus Precision: Refining Weather Forecasts for Climate Adaptation, Dunn-Sigouin		
	#80, Decadal inflow projections for catchments in Brazil, Scheuerer		
	#25, Predicting avalanche risk from meteorological data in Northern Norway, Eiselt		
	#75, Harmful algae bloom frequency response to climate change along the Norwegian coast, Silva		
	#99, Who holds financial climate services accountable to credibility and legitimacy standards?, Eckstrom		
	11:20-12:30: moderated discussion and note-taking		