ECORD Summer School 2022 - Sea level, climate variability and coral reefs

	Monday 5th Sep	Tuesday 6th Sep	Wednesday 7th Sep	Thursday 8th Sep	Friday 9th Sep	Sunday 11th Sep
	Introduction to the topic	*Climate variability from coral reefs*	*Coral reef response to sea-level and climate change*	*Sea-level change from coral reefs*	*Coral reef response to sea-level and climate change*	
9:00 - 9:15	**Welcome & Introduction** Thomas Felis, Dierk Hebbeln, Ulla Röhl	Revision of previous day's material by the participants	Revision of previous day's material by the participants	Revision of previous day's material by the participants	Revision of previous day's material by the participants	
9:15 - 10:45	**Coral reef drilling in IODP** *Gilbert Camoin*	**Global coral reefs under pressure** *Miriam Pfeiffer* Group photo	**Mid to late Holocene sea-level changes from Pacific corals** *Nadine Hallmann*	**U-Th dating of reef corals** *Denis Scholz*	**Climate reconstructions from fossil corals – examples from IODP** *Thomas Felis*	
10:45 - 11:15	Coffee break	Coffee break	Coffee break	Coffee break	Coffee break	
11:15 - 12:45	**Coral reefs in Earth history** *Thomas Brachert*	**Climate and environmental reconstructions from modern corals** *Diane Thompson*	**Great Barrier Reef response to sea-level and environmental changes (Exp. 325)** *Marc Humblet*	**Sea-level during interglacial highstands** *Alessio Rovere* ***(tbc)***	**A Miocene "Great Barrier Reef" on the NW shelf of Australia (Exp. 356)** *Lars Reuning*	
12:45 - 14:00	LUNCH	LUNCH	LUNCH	LUNCH	LUNCH	
14:00 - 15:00	**IODP & ECORD: Structure & objectives** André Bornemann & Ulla Röhl	**presentations by participants**	**presentations by participants**	**presentations by participants**	**presentations by participants**	10:15 - 14:00 Guided tour through the medieval Hanseatic City of Bremen Lunch in the scenic Ratskeller (restaurant in the cellar of the City Hall)
15:00 - 16:00	**Intro to Virtual Ship** Ulla Röhl	**Virtual Ship: Intro #1** Heather Jones & Holger Kuhlmann	Tea break	Tea break	Tea break	
	Tea break	Tea break	**Virtual ship:** Three groups of 8-10 students rotate for three laboratory sessions **#1: Shipboard techniques for physical properties** *Heather Jones & Holger Kuhlmann* **#2: Core description** *David de Vleeschouwer* **#3: IODP Exp. 325 "Great Barrier Reef" virtual core description exercise** *Marc Humblet*	**Virtual ship -** second laboratory session - excercise #1 to #3	**Virtual ship -** third laboratory session - excercise #1 to #3	
16:00 - 17:00	**IODP Core curation** Holger Kuhlmann	**Virtual ship: Intro #2** David de Vleeschouwer				
	Guided tour through MARUM & IODP Bremen Core Repository (BCR) Dierk Hebbeln, Holger Kuhlmann					
17:00 - 18:00		**Virtual ship: Intro #3** Marc Humblet				
	ICEBREAKER					
18:00 - 20:00						

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	Monday 12th Sep	Tuesday 13th Sep	Wednesday 14th Sep	Thursday 15th Sep	Friday 16th Sep
	Climate variability from coral reefs	*IODP-style Logging*	*Climate variability from coral reefs*	*Sea-level change from coral reefs*	*IODP proposals*
9:00 - 9:15	Revision of previous day's material by the participants	Revision of previous day's material by the participants	Revision of previous day's material by the participants	Revision of previous day's material by the participants	Revision of previous day's material by the participants
9:15 - 10:45	**Ocean acidification and thermal stress in coral records** *Juan Pablo D'Olivo*	**Virtual ship - Downhole Logging** Erwan le Ber & Marisa Rydzy	**Coral biomineralization, trace element incorporation and seawater chemistry** *Ed Hathorne*	**Sea-level during glacial lowstands and terminations** *Yusuke Yokoyama*	**How to write an IODP proposal** Rüdiger Stein & Thomas Westerhold
10:45 - 11:15	Coffee break	Coffee break	Coffee break	Coffee break	Coffee break
11:15 - 12:45	**Terrestrial impacts on coral reefs** *Juan Pablo D'Olivo*	**Virtual ship - Downhole Logging** Erwan le Ber & Marisa Rydzy	**Radiocarbon dating of coral reefs** *Yusuke Yokoyama*	**The Hawaiian drowned reefs expedition (Exp. 389)** *Jody Webster*	**How to write an IODP proposal - continued** Rüdiger Stein & Thomas Westerhold
12:45 - 14:00	LUNCH	LUNCH	LUNCH	LUNCH	**Summer School debriefing and farewell** *end approx. 13:00*
14:00 - 15:00	**presentations by participants**	**presentations by participants**	**presentations by participants**	**Summary discussion** *Thomas Felis, Yusuke Yokoyama, Jody Webster*	
15:00 - 15:30	Tea break	Tea break	Tea break	Tea break	
15:30 - 16:15	**Virtual ship: Intro #4** Martin Kölling	**Virtual ship:** Three groups of 8-10 students rotate for three laboratory sessions **#4: Modelling sea level forced reef growth** Martin Kölling **#5: Climate records from annually banded corals virtual exercise** Miriam Pfeiffer & Takaaki K. Watanabe **#6: Reef core description excercise (South Pacific)** Raphael Bourillot	**Virtual ship -** fifth laboratory session - excercise #4 to #6	**Virtual ship -** fifth laboratory session - excercise #4 to #6	
16:15 - 17:00	**Virtual ship: Intro #5** Miriam Pfeiffer & Takaaki K. Watanabe				
17:00 - 18:00	**Virtual ship: Intro #6** Raphael Bourillot				
18:30 - …				FAREWELL DINNER	

last update: 08.08.2022