

COASTAL Summer School 2019 at Helgoland Research Station

„ Marine phytoplankton diversity observation: innovative methods and industrial applications“

Goal: Training on long-term in-situ and remote sensing observations of phytoplankton diversity and abundance detection and innovations of phytoplankton research to application in aquaculture and bionics

- 28 Jun – 8 Jul 2019; AWI-Helgoland (28-30 Jun & 5-8 Jul AWI Helegoland House C
1-4 July RV Heincke daily trips from Helgoland)
- Embedded in joint AWI - Helmholtz Center Geesthacht Institute for Coastal Research (HZG) – Institute of Baltic Sea Research at Warnemünde (IOW) yearly summer school programme (this year only AWI and 1 day by HZG)
- AWI-Lecturers: Astrid Bracher, Eva-Maria Brodte, Lars Friedrichs, Christian Hamm, Joachim Henjes, Hilke Alberts-Hubatsch, Alexandra Kraberg, Yangyang Liu, Katja Metfies, Eberhard Sauter, Mariana Soppa, Stephan Wietkamp
- HZG-Lecturer: Götz Flöser

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Day	Time	Brief Content	Special equip.	Lecturer
28 Jun	15-18:	Introduction to phytoplankton diversity	microscopy	Kraberg
29 Jun	9-15:30:	Molecular tools for phyto. diversity		Metfies/Kraberg
29 Jun	15:30-17:	Intro to Ocean Optics & Ocean Color		Bracher
30 Jun	9-12, 13-16	Ocean Color practicals & theory	laptops	Soppa/Bracher
1-3 Jul	8-17 (-16 3 Jul):	RV Heincke daily cruises: 3 groups per day alternating		
	1)	Phyto diversity: sampling, filtration, micros, molecular		Kraberg/Metfies/Wietkamp
	2)	Optical meas. & phytopl. biooptics (CTD,ACS, QFT, radiometers)		Bracher/Liu
	3)	Phyto chem. Const. & funct. morphology for technology transfer		Henjes/Albert-H./Friedrichs
4 Jul	9-17	RV Heincke daily cruise: Particles and Sediments		Flöser
5 Jul	10-16	Intro to AWI & IOW, expedition & cruise planning		Brodte
6 July	9-12, 13-16	Phytoplankton time series studies		Kraberg
7 July	10-12:30:	TT Bionics: Functional morphology & Lightweight Design		Hamm
7 July	13:30-16:	TT Aquaculture: phyto culturing bioactive const.		Henjes/Alberts-Hubatsch
8 July	11-15:	Introduction principles technology transfer		Sauter

Please bring your laptops for lectures/practicals on 30 June!

29 June after first Ocean Optics lecture: try out steel toe shoes and organize groups for 1-3 Jul; bring shoes+security vest+helmet to SHIP!!! Return to Yangyang wetsts+helmets; shoes to