



future ocean
KIEL MARINE SCIENCES

PhD Topics in Marine Sciences

CLUSTER OF EXCELLENCE "THE FUTURE OCEAN"

KIEL, GERMANY

www.futureocean.org
www.futureocean.org/isos



muthesius
kunsthochschule



Kiel: an excellent place for PhD research



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About Us

The Kiel Cluster of Excellence „Future Ocean“ offers an approach to research that is unique: marine researchers, geologists, economists as well as medical scientists, mathematicians, legal and social scientists contribute their expertise to investigate ocean and climate change.

Over 250 scientists from all these disciplines have joined forces to form an excellent environment for Marine Research. „The Future Ocean“ is currently in its second phase (2012-2017) and is supported within the framework of the „excellence initiative“ of the German Research Foundation (DFG) on behalf of the German government and the federal states of Germany.

The Helmholtz Centre for Ocean Research Kiel (GEOMAR), a main partner in the Cluster, is a world leader in investigating all relevant aspects of modern marine sciences, from the atmosphere to the sea floor.

We are seeking

We are seeking the brightest young scientists to join our research efforts. You may have a background in a „classic“ marine science disciplines, or any ocean related fields in economy, medicine, biology, chemistry, mathematics, geology, geography, law and informatics.

If you strive to understand the ocean sustaining our future become a PhD candidate and explore the Future Ocean with us!

We offer

- A multidisciplinary environment in marine research
- An excellent research infrastructure and a network of outstanding / distinguished marine scientists
- A PhD Programme in Marine Sciences (see below)

INTEGRATED SCHOOL OF OCEAN SCIENCES (ISOS)

As a PhD candidate in the Cluster of Excellence „The Future Ocean“ you will be supported by the Integrated School of Ocean Sciences (ISOS) which offers high-level scientific and career-oriented training as well as additional financing.

As an international PhD candidate, you will have access to a broad support structure, to a PhD network and to courses ranging from German language courses to tools applicable for your research.

Interdisciplinary exposure allows you to learn what you may need in your „life after a PhD“.

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Support Structure

Thesis Committees | Peer Mentoring | Mentoring at Scientific Fairs | Financial Support | Mini-Proposals

Career Orientation & Networking

Career Evenings | Science meets Industry | Entrepreneurship | „Meet the Prof“ | PhD Retreats | 3-Cluster PhD conference

Personal Competencies

Poster Presentation | Peer Reviewing | Good Scientific Practice | Grant Writing | Presentation Techniques | Scientific Communication | Writing Lab | Project Management | Writing for the Public Press | Career Planning in R & D |more

ISOS Courses for Marine Sciences

GIS | MATLAB | Mass Spectrometry & Optical Spectroscopy | Data Mining | Law of the Sea | Statistics | Numerical Modelling | Natural Resource Economics | Novel Approaches to Molecular Biology | Ocean Acidification | Carbon Cycling | ImageJ | Digital Image Optimization.....more



| Stronger scientific career profile for young researchers
| Educational profile for Marine Education at Kiel Uni
| Internationalisation of Doctoral Education

PhD Topics* in Marine Sciences



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Biological Oceanography

- Chemical and physical properties of marine gel particles – Prof. Dr. Anja Engel

Chemical Oceanography

- Biogeochemistry of atmospheric aerosols and suspended/sinking particulate Fe, Ag, Al, Cd, Cu, Mn, Mo, Ni, Pb, U, Zn in the Indian Ocean. Contribution to the International GEOTRACES Programme – Prof. Dr. Eric Achterberg
- Resolving iron co-limitation of phytoplankton productivity in the oligotrophic ocean – Prof. Dr. Eric Achterberg
- Global oceanic emissions of carbon monoxide (CO) – Prof. Dr. Hermann Bange
- Deciphering the sources of nitrous oxide by site-specific isotopic signature using off-axis integrated cavity output spectroscopy – Prof. Dr. Hermann Bange
- The air- sea exchange of multiple anthropogenic and natural trace gases at the coastal ocean interface – Prof. Dr. Arne Körtzinger

Invasion Ecology

- Understanding the source, spread and impact of the pet traded Nearctic turtles in Schleswig-Holstein – Prof. Dr. Stefanie Ismar

Marine Aquaculture

- Environmental Impact Assessment of Recirculating Aquaculture System (RAS) – Prof. Dr. Carsten Schulz

Marine Biogeochemical Modelling

- Anthropogenic perturbations of marine biogeochemical cycles – Prof. Dr. Andreas Oschlies
- Transport of biogeochemical tracers by coherent ocean eddies – Prof. Dr. Andreas Oschlies

Marine Evolutionary Ecology

- Genomics and the origin of marine species – Prof. Dr. Oscar Puebla

Marine Geosystems

- Nutrient cycling in marine sediments – Prof. Dr. Klaus Wallmann

Marine Meteorology

- Relative Roles of the North Atlantic Oscillation and the East Atlantic Pattern in Driving the Atlantic Meridional Overturning Circulation – Prof. Dr. Mojib Latif

If you are interested in one of these topics, find more information on our homepage
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* Important Notice: These topics do not include a PhD stipend. Interested students should bring a scholarship or contact us to find possibilities for funding.

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Marine Microbiology

- Elicitation of secondary metabolism in marine sponge-associated actinomycetes – Prof. Dr. Ute Hentschel Humeida

Marine Molecular Biology

- Development of CRISPR/Casmediated gene editing in the marine flatworms *Macrosotmum lignano* – Prof. Dr. Thomas Roeder
- Life span extension by marine products – Prof. Dr. Thomas Roeder

Marine Physiology

- Sea urchins as a model organism for pH regulation and calcification – Prof. Dr. Markus Bleich

Mathematics and Marine Science

- Simulation, parameter identification and optimization in marine research – Prof. Dr. Thomas Slawig

Paleoceanography

- Late Pleistocene Drake Passage surface to subsurface oceanography and SE Pacific mode water impact on the S Atlantic– Prof. Dr. Dirk Nürnberg

About the "Future Ocean"

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About the PhD Programme

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About Kiel

Kiel is one of the biggest and most important marine science locations in Europe. With an internationally oriented staff, Kiel promotes the concept of interactive academic cultures, and offers excellent opportunities for early-stage researchers.

Kiel is located in Northern Germany on the Baltic Sea. It is surrounded by attractive beaches, lakes, and has a modest cost of living. As a world class sailing city, Kiel hosts one of the biggest sailing events in the world.

As a PhD candidate in Kiel you will not pay any tuition fees.

www.uni-kiel.de

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