

# Foresight Workshop

**HGF-Alliance ROBEX**  
**Robotic Exploration of Extreme Environments**

International Workshop  
February 19th 2014  
Bremen, Germany



Universität Bremen\*  
Zentrum für Marine Umweltwissenschaften  
Leobener Strasse  
28359 Bremen





Opening			
9:00	Introduction Helmholtz Alliance ROBEX <i>Martina Wilde, Alfred-Wegener-Institute AWI</i>		
<b>Session 1: Supporting Systems</b> <i>Chair: Tim van Zoest, DLR Institute of Space Systems</i>		<b>Session 3: Mobility</b> <i>Chair: Christoph Waldmann, Marum</i>	
9:30	ROBEX: Supporting Systems <i>Tim van Zoest, DLR Institute of Space Systems, Bremen</i>	14:00	ROBEX: Mobility <i>Christoph Waldmann, Marum, Bremen</i>
10:00	PlugPlay Avionics for Space Moduls <i>Johan Bäckström, AAC Microtec, Uppsala, Sweden</i>	14:30	Planetary mobility and rover designs <i>Michele Faragalli, McGill University, Canada</i>
10:40	Cooperative Control and Navigation of Multiple Autonomous Marine Vehicles <i>Antonio Pascoal, University of Lissabon, Portugal</i>	15:10	Enhancing the spatio-temporal coverage of robotic survey operations <i>Jaoa Sousa, University of Porto, Portugal</i>
11:10 – 11.30 Coffee Break		15:50	Challenges of Remote Rover Operations and Field Testing <i>Elie Allouis, Astrium Stevenage, United Kingdom</i>
<b>Session 2: Autonomy</b> <i>Chair: Bernd Schäfer, DLR, Robotics and Mechatronics Center</i>		16:30 – 16.50 Coffee Break	
11:30	ROBEX: Autonomy <i>Bernd Schäfer, DLR, Robotics and Mechatronics Center</i>	<b>Session 4: Opportunities for cooperation</b>	
12:00	Autonomy for unmanned marine vehicles – Current practices and future needs for long term observations in harsh environments <i>Ralf Bachmayer, Memorial University St. Johns, Canada</i>	16:50	Open Discussion
12.40	Vision Systems for Future Autonomous Space Exploration Robots <i>Giannis Kostavelis, University of Thrace, Xhanti, Greece</i>		
<b>13:20 – 14:00 Lunch Buffet</b>		<b>18:00 Closing</b>	