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12:10-12:15 Introduction

12:15-12:40 Seminar (Presentation)

12:40-12:50 Q&A

Observing the oceans; Why and How?

Chair: Assoc. Prof. Toshinori Tanaka (Research Promotion Coordinator of Q-AOS)

What do you remind of ocean? Ocean science covers a wide range of science, technology and culture, including fishery, seaside leisure, maritime transport. undersea resources, tsunami disasters, sea level rise, climate changes, and micro-plastics distributions. In order to "know" the ocean, we need to make observations, typically by vessels. However, they are too few to cover the vast ocean. In this talk, I will introduce how we measure the World Ocean in the 21st century. Meanwhile, there still remain areas difficult to observe; polar regions, deep seas, and coastal areas. Although coastal areas are relatively easier to access from lands, most phenomena are so small and change so quickly that they are hard to capture. In addition, oceanographic data within territorial waters are not available. Therefore, new approaches are required to establish a global network of observations, which will be discussed in this talk.





Kyushu University Research Institute for **Applied Mechanics/Interdisciplinary Graduate School of Engineering Sciences, Department of Earth System Science and Technology**

Dr. Kaoru Ichikawa received a master degree from the School of Oceanography at the University of Wales, U.K. and a PhD from the Faculty of Science, Kyoto University. After he worked as an assistant professor at the Faculty of Engineering, Ehime University, he has been an associate Professor of Research Institute for Applied Machanics (RIAM), Kyushu University since 1997. Until 2010, he was also appointed a researcher at the Japan Agency for Marine-Earth Science and Technology (JAMSTEC). Dr. Ichikawa's research mainly uses remote sensing data from satellite sensors to measure fluctuations with small spatial and/or temporal scales, such as coastal events. Our goal is to gain new oceanographic knowledge by "seeing what is invisible to the eye".