Center for Integrated Underwater Observation Technology

[Fusion of Ocean Cyber and Physical Systems]

Graduate School of Frontier Sciences; Ocean Technology, Policy and Environment

Graduate School of Engineering; Systems Innovation, Mechanical Engineering,

Electrical Engineering and Information Systems, Information and Communication Engineering

Graduate School of Interdisciplinary Information Studies; Interdisciplinary Information Studies

http://seasat.iis.u-tokyo.ac.jp/

Toward the Construction of Ocean Social Infrastructure
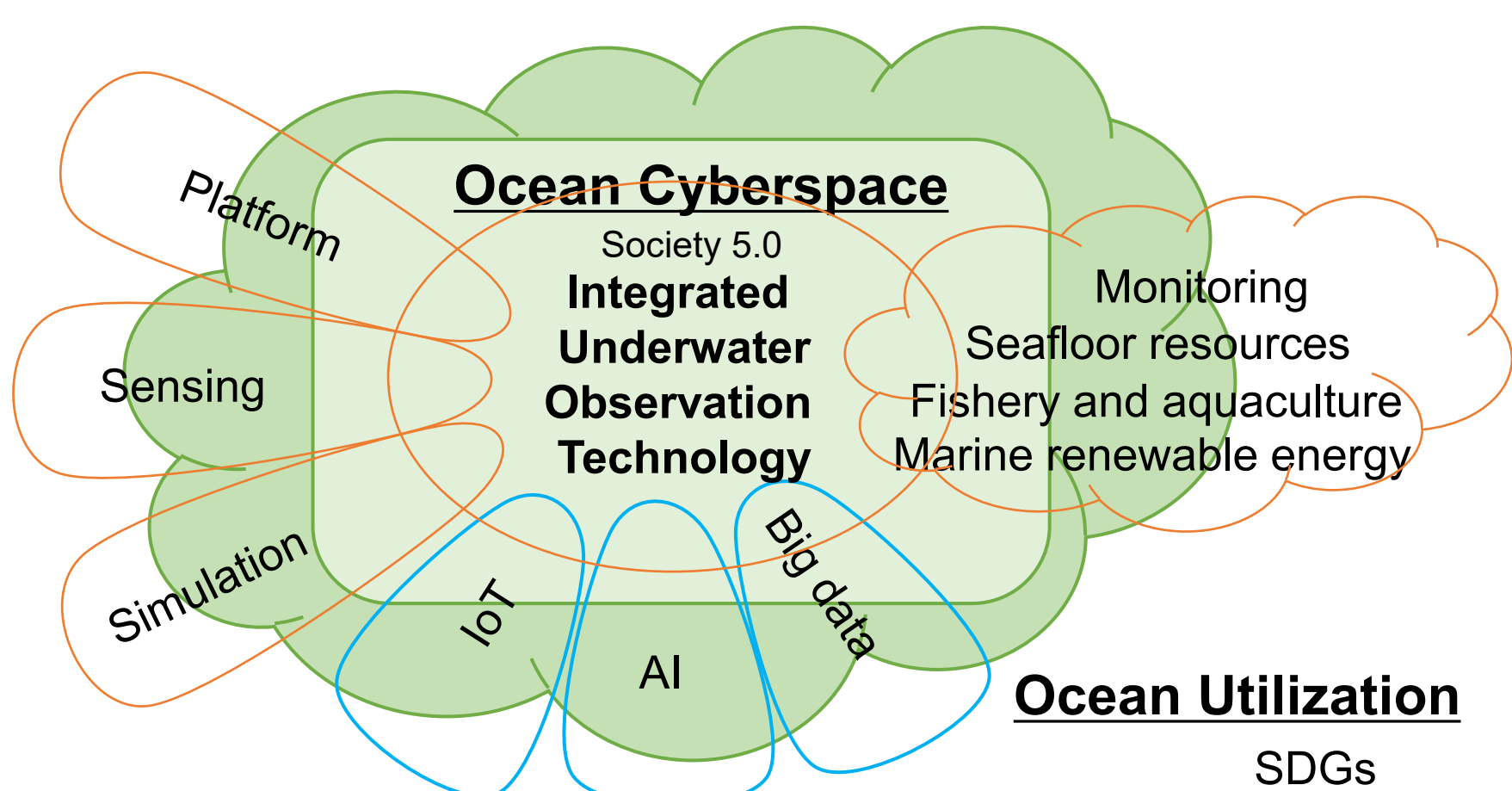
Based on integrated underwater observation technology, we aim to create an ocean cyberspace (virtual space) that is integrated with the physical space of the ocean (real space) and is free from the restrictions of access difficulties by incorporating IoT, artificial intelligence (AI), and big data technology.
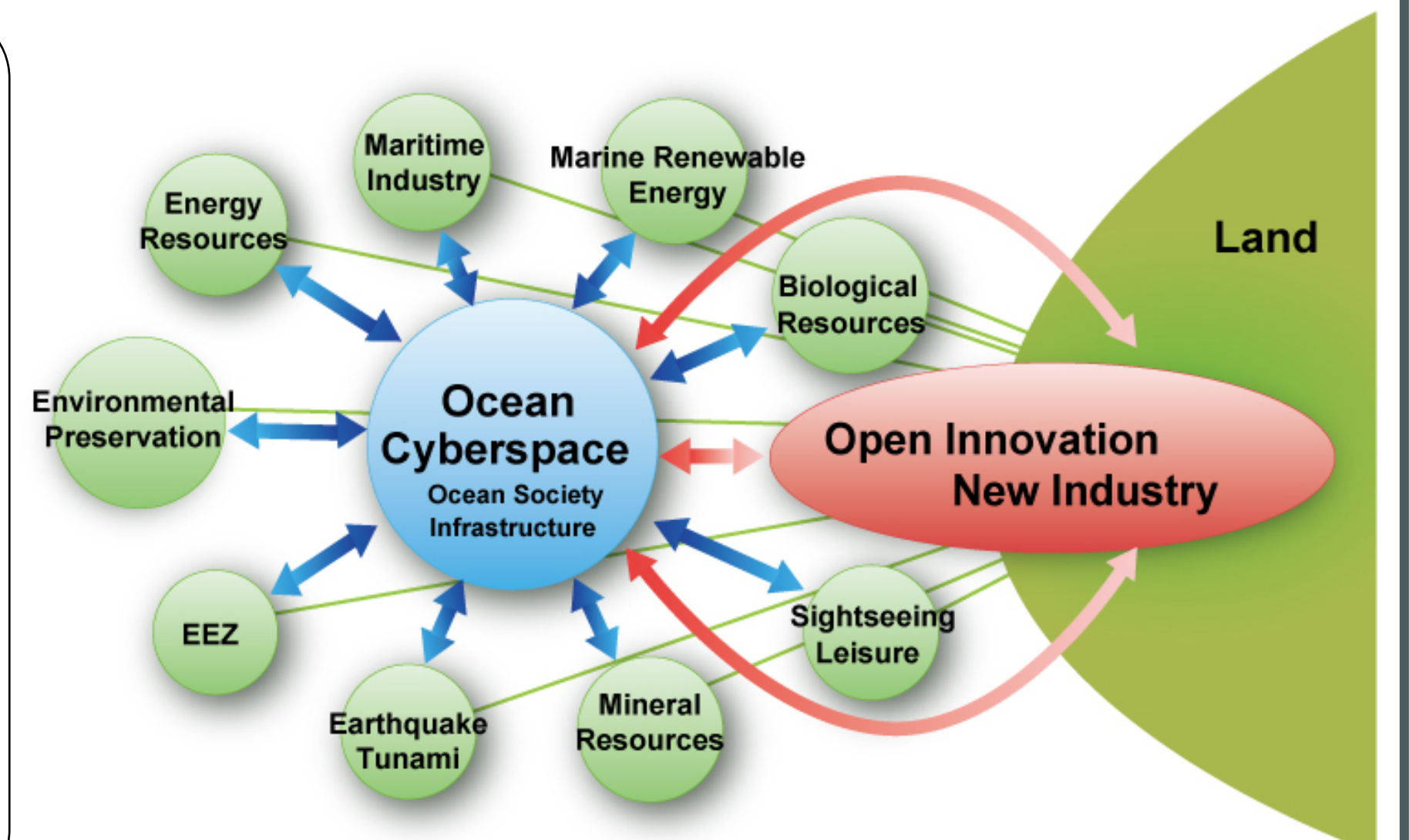
Ocean Sensing System

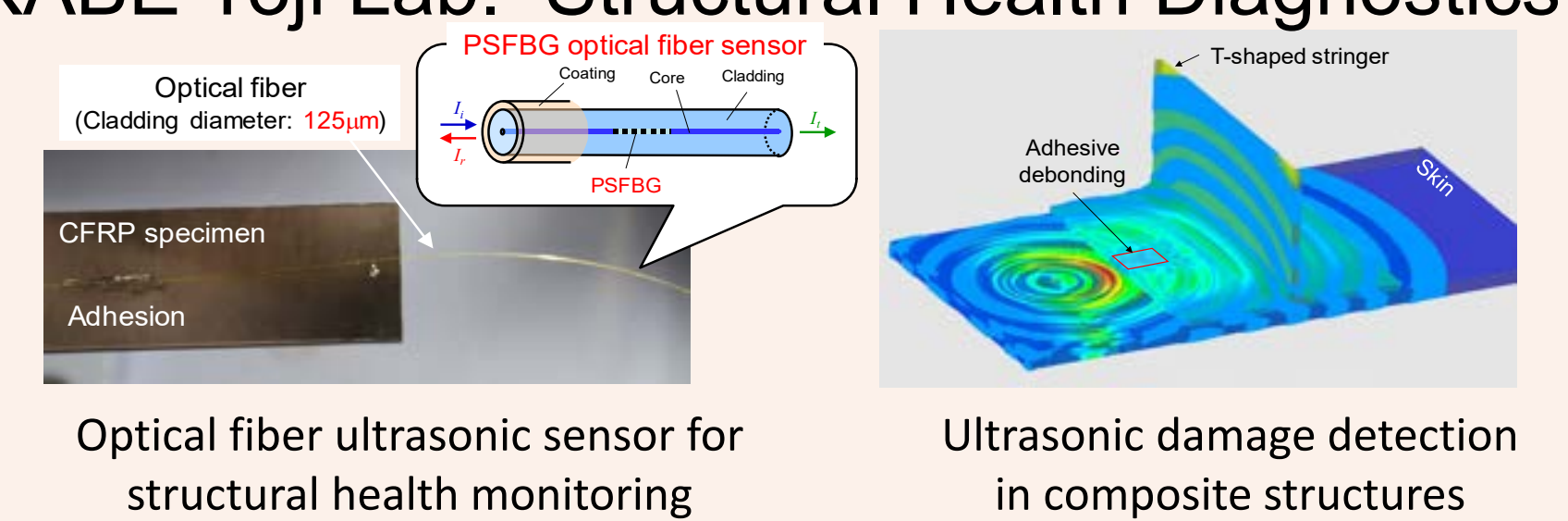**KAWAGUCHI Katsuyoshi Lab.**
Multidisciplinary Seafloor Observatory Engineering

RHEEM Chang-Kyu Lab.
Ocean Environmental Engineering

Ocean Cyber-Physical System

OKABE Yoji Lab. Structural Health Diagnostics

Optical fiber ultrasonic sensor for structural health monitoring
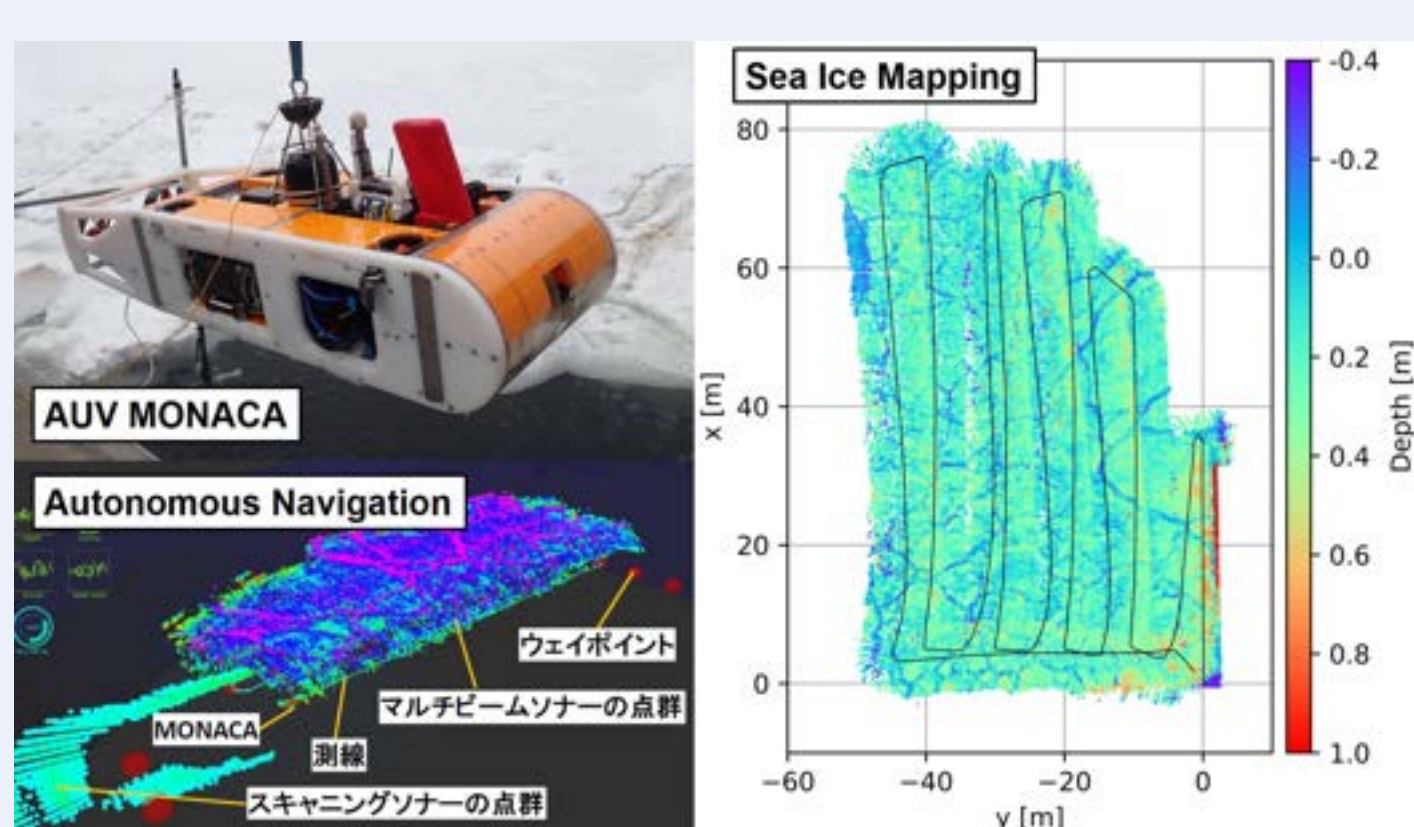
Ultrasonic damage detection in composite structures
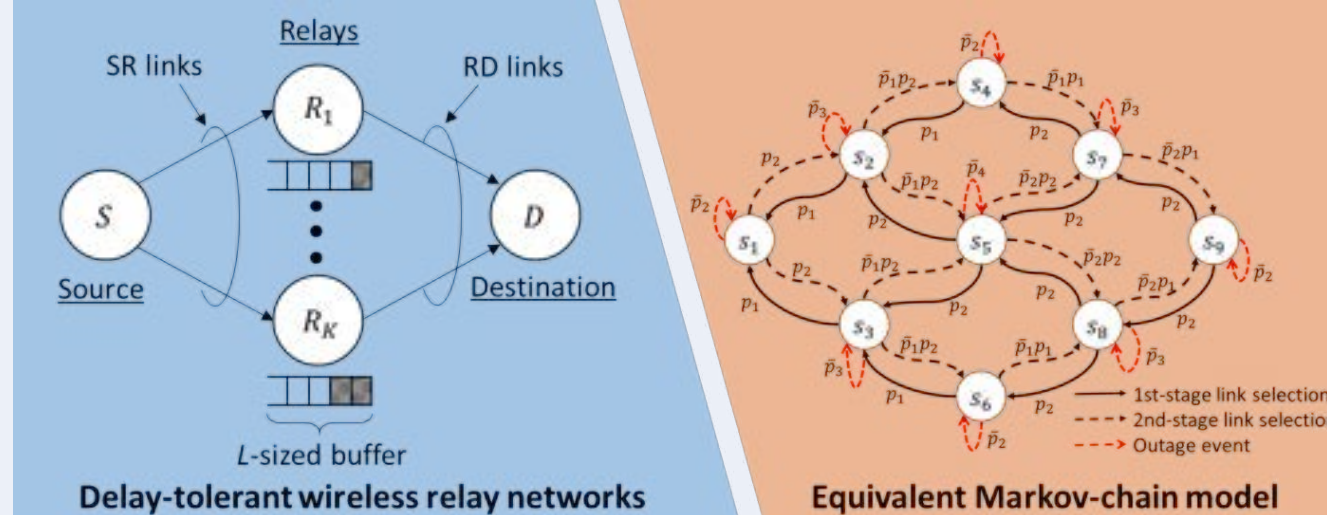
OISHI Takeshi Lab.
Spatiotemporal Media Engineering

Tele-operation of Humanoid Robot
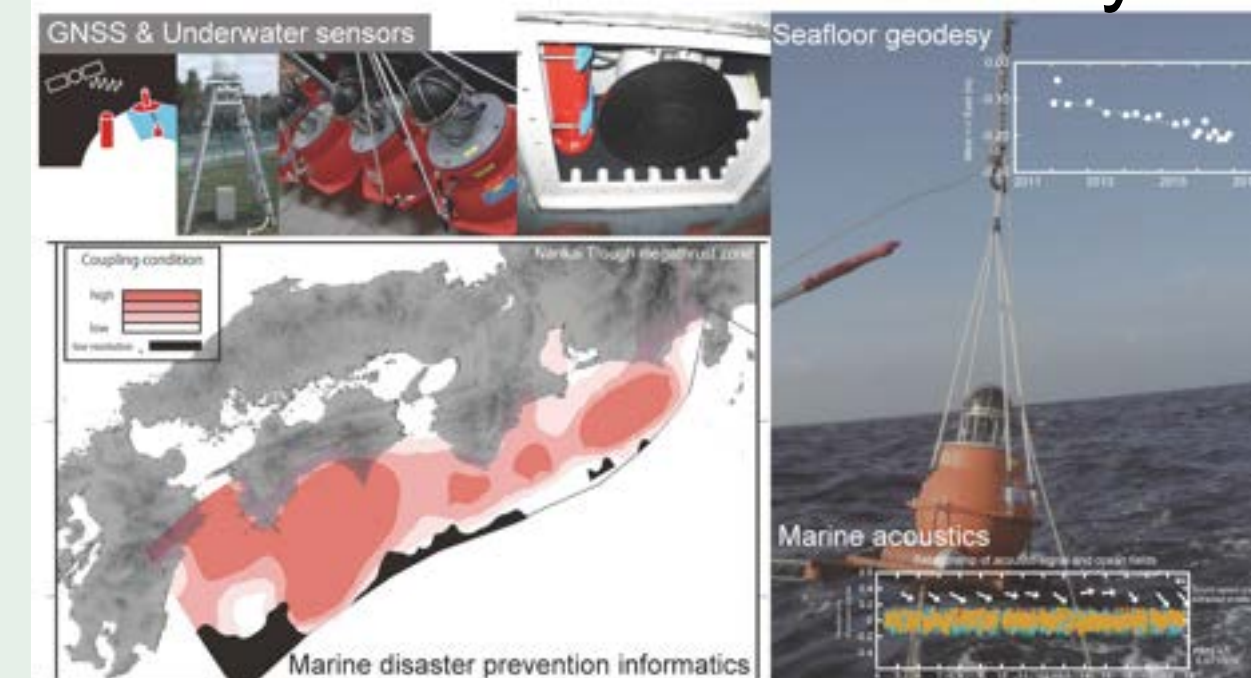
MAKI Toshihiro Lab. Underwater Platform Systems

SUGIURA Shinya Lab.
Wireless Communication Networks

Delay-tolerant wireless relay networks

Equivalent Markov-chain model

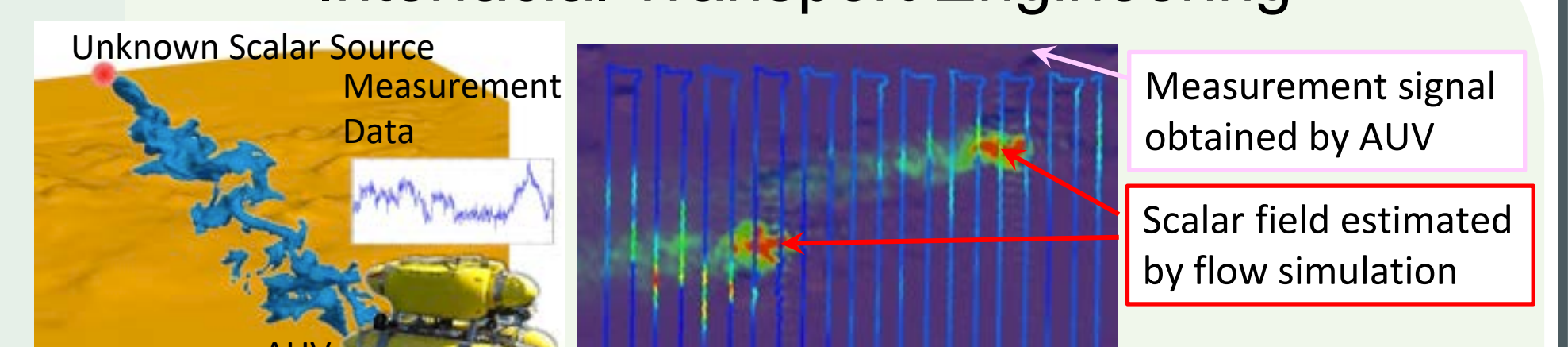**THORNTON Blair Lab.** Underwater Photonics

YOKOTA Yusuke Lab.
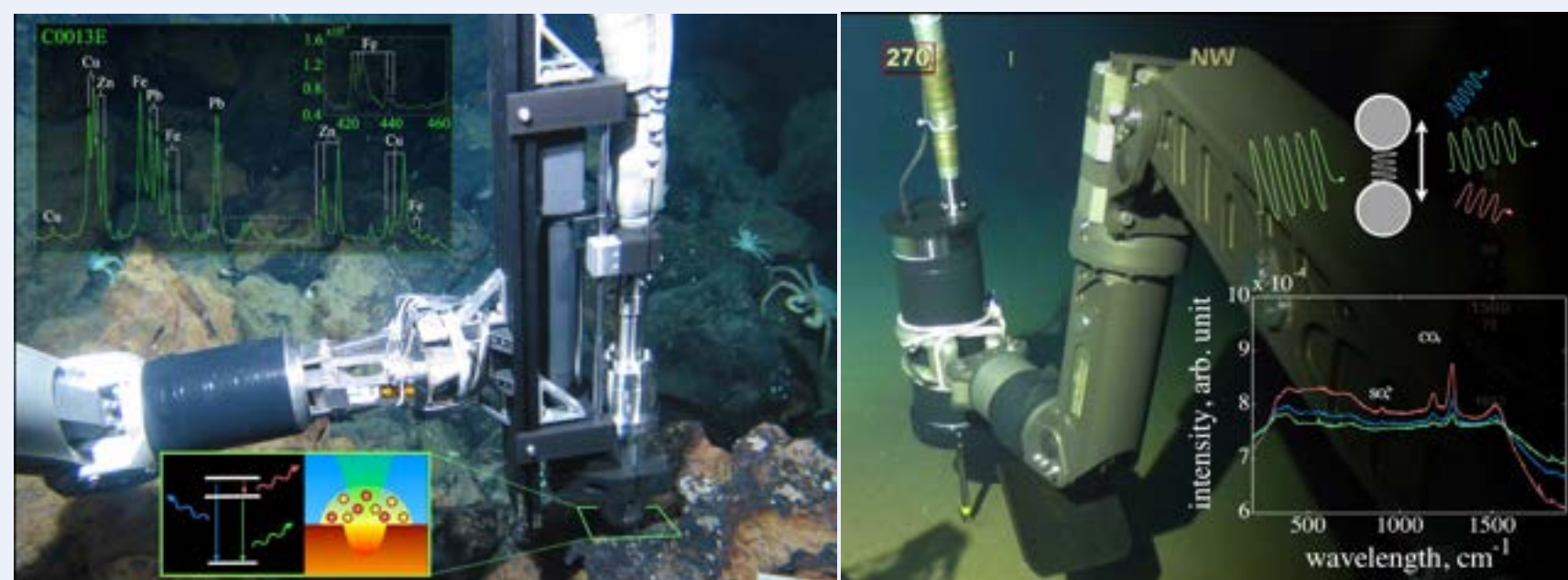Underwater Information System

HASEGAWA Yosuke Lab.
Interfacial Transport Engineering

Estimation of Scalar Field through Integration of Measurement Data into Computational Fluid Dynamics

KITAZAWA Daisuke Lab.
Marine Ecosystem Engineering

FUKUBA Tatsuhiro Lab.
Multi-modal Ocean Sensing Systems

Microfluidics for Oceanography
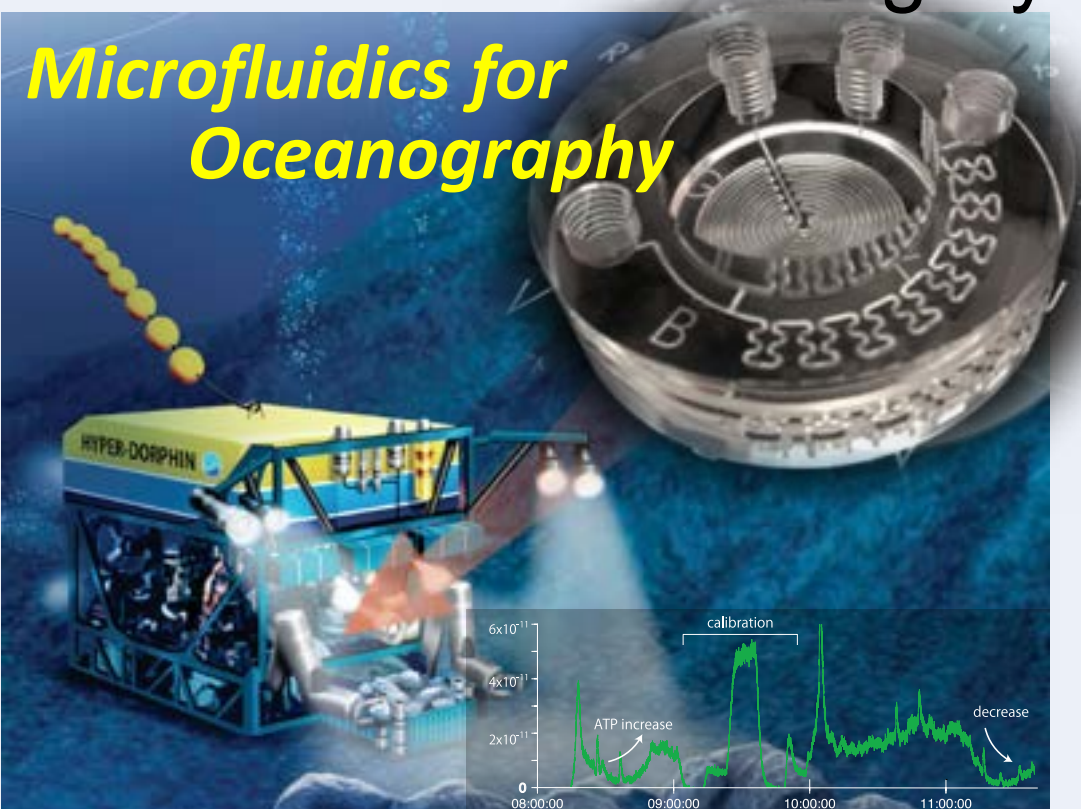
NEMOTO Toshihiro Lab.
Earth Observation Data Engineering

Lake Suwa (Eutrophication)

Lake Biwa (Climate change)

Tokyo Bay (Eutrophication)

The Caspian Sea (Oil spill)

Gokasyo Bay (Aquaculture)

Off Sanriku (Aquaculture)

Lake Kasumigaura (Eutrophication)
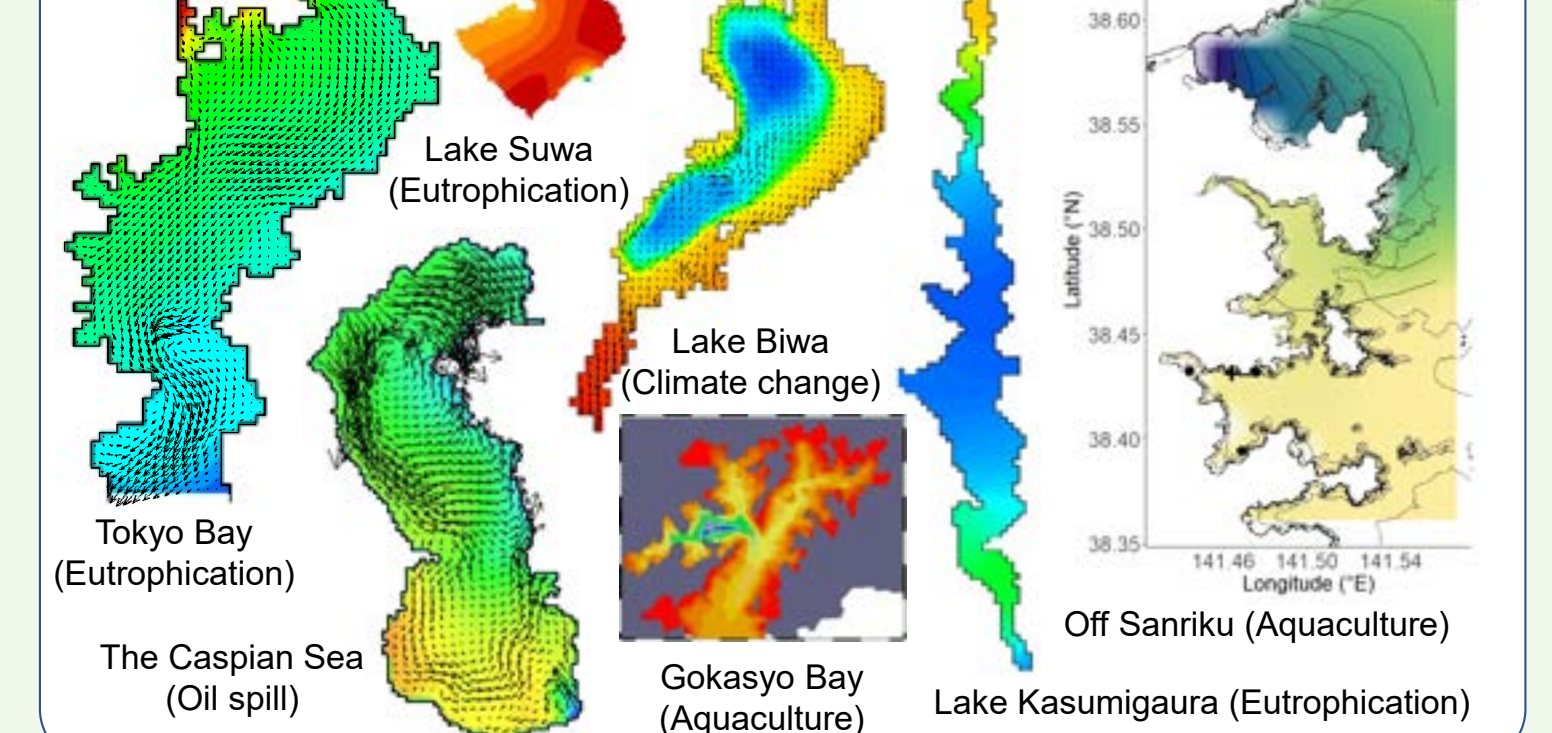
Ocean Information Fusion