

211th WPI-IIIS Seminar

Hear the Squid Neurons Sing

Coleoid cephalopods (octopus, squid, and cuttlefish) are emerging model organisms in neuroscience, providing insights into common principles of neural systems shared across species. Previously, we reported that octopus convergently evolved two-stage sleep architecture, with one state showing features common to vertebrate REM sleep. However, cellular-resolution *in vivo* physiology has never been demonstrated in cephalopod species, representing a decades-long bottleneck in the field. Focusing on the squid visual system as our model, we recently overcame this challenge. Using *in vivo* two-photon calcium imaging and Neuropixels recordings, we are beginning to reveal the functional architecture of cephalopod vision.



Dr. Tomoyuki Mano

Computational Neuroethology Unit,
Okinawa Institute of Science and Technology

Date: **Thursday, November 21, 2024**

Time: **11:30 – 12:30**

Venue: **1F Auditorium, IIIS Building**

*** On-site participation only**



Contact: International Institute for Integrative Sleep Medicine, University of Tsukuba
029-853-5857 (ext.5857) | wpi-iiis-alliance@ml.cc.tsukuba.ac.jp