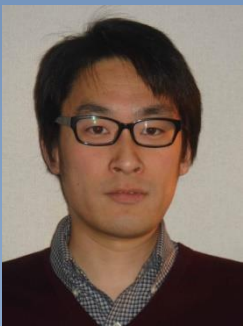


# 50<sup>th</sup> WPI IIS Seminar

## “Space somnology: Development of a new vigilance monitoring system for space exploration”

The space environment, which imposes multiple stressors due to the high workload, long-term isolation, non-24h day-night rhythm, or high risk of living crisis, can seriously hinder astronauts' sleep and wakefulness, resulting in mental problems or performance decrements. In response, I have started a new research project, which investigates a new and accurate marker to determine any decline in vigilance using multiple ocular metrics to evaluate vigilance level of astronauts. In this talk, I will present our recent studies regarding: (1) mental health and performance risks during space exploration; and (2) development of a new vigilance monitoring system for space exploration.



Speaker: Dr. Takashi Abe

Flight Crew Operations and  
Technology Department,  
Japan Aerospace Exploration Agency

**Date:** Wednesday, January 14, 2015

**Time:** 12:00-13:00

**Venue:** Room #402, 4F, Health and Medical Science Innovation  
Laboratory, University of Tsukuba

☆ Light refreshments will be served.



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