

# ROGUE WORLDS 2024

Dec. 11 - 14th, 2024

Osaka University Nakanoshima Center, Osaka Japan  
4 Chome-3-53 Nakanoshima, Kita Ward, Osaka, 530-0005

## WEDNESDAY

Location: Rooms 7A + 7B (7th floor)

WEDNESDAY	DEC 11TH	
8:50-9:30	Registration opens	
9:30-9:45	William DeRocco	Welcome and Introductions
9:45-10:15	Przemek Mroz	Microlensing Surveys: A Brief Introduction
10:15-10:35	Qiyue Qian	Systematical search for free-floating planets in KMTNet microlensing survey
10:35-11:10	Coffee break	
11:10-11:30	Takahiro Sumi	MOA-II Free Floating Planet Mass Function
11:30-11:50	Naoki Koshimoto	Detection efficiency of MOA-II 9-yr survey for free-floating planet events
11:50-12:10	Kansuke Nunota	Systematic Search for Wide-orbit Planet by Anomaly Detection Algorithm
12:10-2	Lunch	
2-2:20	Dave Bennett	Identifying or Excluding Host Stars for Candidate Free-Floating Planets with JWST
2:20-2:40	Aparna Bhattacharya	Rogue Planets or Wide Orbit planets around White Dwarfs?
2:40-3:10	Coffee break	
3:10-3:30	Sean Terry	Follow-up studies of MOA-II events with Keck AO

3:30-3:50	Scott Gaudi	The Roman Galactic Exoplanet Survey Project Infrastructure Team
3:50-4:10	Open discussion on microlensing	

## THURSDAY

**Location: Rooms 7A + 7B (7th floor)**

THURSDAY	DEC 12TH	
9:30-10	Eve Lee	Planet Formation Theory: The Fundamentals
10-10:20	Gavin Coleman	Predicting the mass distribution of Free Floating Planets from planet formation models
10:20-10:40	Shigeru Ida	Planet population synthesis simulation's predictions vs. microlensing observations
10:40-11:10	Coffee break	
11:10-11:40	Sean Raymond	How planets are dynamically ejected from their home systems to "go rogue"
11:40-12:00	Sam Hadden	Wide-orbit planets from N-body simulations
12:00-12:20	Yuji Matsumoto	Ejection of super-Earths from low-mass stars
12:20-2	Lunch	
2-2:20	Eiichiro Kokubo	Orbital Architecture of Planetary Systems Formed by Gravitational Scattering and Collisions
2:20-2:40	Yuki Kambara	Oligarchic growth of protoplanets in a planetesimal ring
2:40-3:10	Coffee break	
3:10-3:30	Cheng Chen	Tilted circumbinary planetary systems as efficient progenitors of free-floating planets
3:30-3:50	Jeremy Smallwood	Planet Formation in Misaligned Circumbinary Discs: Pathways to Free-Floating Planets

3:50-4:10	Open discussion on formation mechanisms	
-----------	---	--

## FRIDAY

**Location: Rooms 7A + 7B (7th floor)**

FRIDAY	DEC 13TH	
9:30-10	Herve Bouy	Searching for rogue worlds with direct imaging
10-10:20	Matthew De Furio	Identification of a turnover in the initial mass function of a young stellar cluster down to 0.5 MJ
10:20-10:40	Takahiro Kanai	The IMF of Very Low Mass Objects
10:40-11:10	Coffee break	
11:10-11:30	Hanno Rein	The role of flybys in sculpting the Solar System
11:30-11:50	Yukun Huang	A Rogue Planet Hypothesis for the Formation of the Outer Solar System
11:50-12:10	Patryk Lykawka	Dynamical evolution of the early solar system: a history of stable and rogue planets
12:10-2	Lunch	
2-2:20	Yasunori Hori	Free-floating Planets from Stars in a Cluster Environment
2:20-2:40	David Dahlbudding	Exploring the Habitability of Exomoons Around Free-Floating Planets
2:40-3:10	Coffee break	
3:10-3:30	Farzaneh Zohrabi	Simultaneous observations for Roman FFPs
3:30-3:50	Natalia Reksini	Hunting for free-floating planets with Euclid and Roman
3:50-4:10	Open discussion on all topics	
4:10-4:30	Closing remarks	
6:00-8:00	Banquet	Location: Salon Agora (9th floor of Nakanoshima Center)

## SATURDAY

**Location: Rooms 6E + 6F (6th floor)**

SATURDAY	DEC 14TH
10:00-1:00	Free time for collaboration