

“Observational Tests of the Dynamical Models for Outer Solar System Formation”

Forum Agenda

2–4 September 2025

Tuesday, September 2

09:00 Welcome by Conveners

09:15 Welcome by ISSI

09:30 Introduction Round 1

10:30 *Coffee Break*

11:00 Introduction Round 2

12:00 *Lunch*

13:30 **Session 1 - Populations - What do we know about the current architecture of the outer solar system?** - *Introduction by chair (Rosita Kokotanekova, Raphael Marschall)*

13:35 Talk by **Wes Fraser**

13:50 Talk by **Kat Volk**

14:05 Talk by **Ruth Murray-Clay**

14:20 Discussion

14:50 Summary

15:00 *Coffee Break*

15:30 **Session 2 - Planet Instability Models, Planet X Hypothesis and Rogue planet: How did planets get onto their orbits and what are the consequences of that?** - *Introduction by chair (Sean Raymond)*

15:35 Talk by **Yukun Huang**

15:50 Talk by **Pedro Bernardinelli**

16:05 Discussion

16:50 Summary

17:00 *Icebreaker Welcome Drink at ISSI*

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Wednesday, September 3

09:00 Morning Discussion Round

09:30 Session 3 - Influence of stellar flybys: What role did the stellar and galactic environment play in shaping the outer solar system populations? - Introduction by chair
(Susanne Pfalzner)

09:35 Talk by **Simon Portegies Zwart**

09:50 Talk by **Coryn Bailer-Jones**

10:05 Discussion

10:50 Summary

11:00 Coffee Break

11:30 Session 4 - Oort Cloud: What do Oort Cloud comets reveal about the solar system dynamical evolution? - Introduction by chair (Daniel Hestroffer)

11:35 Talk by **Arika Higuchi**

11:50 Talk by **Melaine Saillenfest**

12:05 Discussion

12:50 Summary

13:00 Lunch

14:30 Session 5 - Effects of evolution: What processes have been at play in different areas of the solar system and which properties of the objects have they determined or altered? - Introduction by chair (Rosita Kokotanekova)

14:35 Talk by **Raphael Marschall**

14:50 Talk by **Aurélie Guilbert-Lepoutre**

15:05 Discussion

15:50 Summary

16:00 Coffee Break

16:30 Session 6 - JWST Observations - What key evidence on the outer solar system formation have the first JWST programs already brought? - Introduction by chair (Aurélie Guilbert-Lepoutre)

16:35 Talk by **Silvia Protopapa**

16:50 Talk by **Will Grundy**

17:05 Discussion

17:50 Summary

18:00 End of Day 2

19:30 Dinner at Casa Novo

Casa Novo, Läuferplatz 6/8,
3011 Bern
www.casa-novo.ch

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Thursday, September 4

09:00 Morning Discussion Round

09:30 Session 7 - Surface properties of all populations (colors, albedo, phase fn, etc):
What does the diversity of the observed surface properties within the different
populations reveal about the outer solar system history? - Introduction by chair (Wes
Fraser)

09:35 Talk by **Rosemary Pike**

09:50 Talk by **Matthew Belyakov**

10:05 Discussion

10:50 Summary

11:00 Coffee Break

11:30 Session 8 - Physical properties of all populations: What does the distribution of
physical properties constrained for the various properties reveal about the processes
that shaped the outer solar system? - Introduction by chair (Aur lie Guilbert-Lepoutre)

11:35 Talk by **Audrey Thirouin**

11:50 Talk by **Ying-Tung Chen**

12:20 Discussion

12:50 Summary

13:00 Lunch

14:30 Session 9 - Future observational tests: What can we learn from the surveys,
observational programs and space missions already planned and which other
observational tests should be prioritized? - Introduction by chair (Matthew Belyakov)

14:35 Talk by **David Trilling**

14:50 Talk by **Marc Buie**

15:05 Discussion

15:50 Summary

16:00 Coffee Break

16:30 Final Discussion

17:30 End of the Forum

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