Yukun Huang 黄宇坤

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EDUCATION	Ph.D. in Astronomy, University of British Columbia (UBC), Canada M.S. in Aerospace Science, Tsinghua University, China	2019 – 2023 2016 – 2019		
RESEARCH POSITIONS	Project Research Fellow, National Astronomical Observatory of Japan (NAOJ), Japan Collaborator: Prof. Eiichiro Kokubo Apr. 2024 – Now			
	Visiting Scholar, Tsinghua University, China Collaborators: Prof. Wei Zhu & Prof. Chris Ormel Jan. 20:	24 – Mar. 2024		
	Graduate Research Associate, UBC, Canada Advisor: Prof. Brett Gladman	2019 – 2023		
	Research Associate, Tsinghua University, China Advisor: Prof. Junfeng Li	2015 - 2019		
GRANTS & FELLOWSHIPS	NAOJ Project Research Fellow Hayakawa Fund (早川幸男基金)	2024 – Now 2024		
	Japan Foundation for Promotion of Astronomy Fund (天文振興財団助成) Edwin S.H. Leong Fellow	2024 2020 - 2023		
REFERED PUBLICATIONS	As first author: 1. Dynamics of Binary Planets within Star Clusters Huang, Zhu & Kokubo. ApJL 975, L38 (2024) 2. Primordial Orbital Alignment of Sednoids			
	 Huang, & Gladman. ApJL 962, L33 (2024) 3. A Rogue Planet Helps Populate the Distant Kuiper Belt Huang, Gladman, Beaudoin, & Zhang. ApJL 938, L23 (2022) 			
	 4. Free Inclinations for Transneptunian Objects in the Main Kuiper Belt Huang, Gladman, & Volk. ApJS 259, 54 (2022) 			
	5. Four-billion year stability of the Earth–Mars belt Huang, & Gladman. MNRAS 500, 1151 (2021)			
	6. On the Instability of Saturn's Hypothetical Retrograde Co-orbitals Huang , Li, Li, & Gong. MNRAS 488, 2543 (2019)			
	7. Kozai-Lidov Mechanism inside Retrograde Mean Motion Resonances Huang, Li, Li, & Gong. MNRAS 481, 5401 (2018)			
	8. Dynamic Portrait of the Retrograde 1:1 Mean Motion Resonance Huang, Li, Li, & Gong. AJ 155, 262 (2018)			
	As contributing author: 9. Asteroid Kamoʻoalewa's journey from the lunar Giordano Bruno crat resonance Grant Gra	er to Earth 1:1		
	Jiao, Cheng, Huang , et al. Nature Astronomy 8, 819 (2024) 10. OSSOS. XXIX. The Population and Perihelion Distribution of the De Belt	etached Kuipe		
	Beaudoin, Gladman, Huang , et al. PSJ 4, 145 (2023) 11. Flip mechanism of Jupiter-crossing orbits in the non-hierarchical trip	le system		
	Li Lei Huang & Cong MNRAS 502 5584 (2021)	0,000111		

Li, Lei, Huang, & Gong. MNRAS 502, 5584 (2021)

12. Dynamics of retrograde 1/n mean motion resonances: the 1/-2, 1/-3 cases Li, **Huang**, & Gong. Astrophysics and Space Science 365, 165 (2020)

- 13. A semi-analytic model for the study of 1/1 resonant dynamics of the planar elliptic restricted co-orbital problem
 - Li, Huang, & Gong. Research in Astronomy and Astrophysics (2020)
- 14. Assess the Risk of Potentially Hazardous Asteroids through Mean Motion Resonance Li, Huang, & Gong. Astrophysics and Space Science 364, 78 (2019)
- 15. Survey of asteroids in retrograde mean motion resonances with planets Li, Huang, & Gong. A&A 630, A60 (2019)
- 16. Centaurs Potentially in Retrograde Co-orbit Resonance with Saturn Li, Huang, & Gong. A&A 617, A114 (2018)

SCIENCE TEAMS CLASSY: Classical and Large-A Solar System Survey

2022 - Now

• Dynamical classification & modelling of discovered TNOs

FOSSIL: Formation of the Outer Solar System: an Icy Legacy

2024 - Now

• Dynamical analysis of discovered objects & theoretical prediction

PRESS COVERAGE & OUTREACH

Science: Where did Earth's oddball 'quasi-moon' come from? Scientists pinpoint famed lunar crater	2024
Space.com: Earth's weird 'quasi-moon' Kamo'oalewa is a fragment blasted out of big moon crater	2024
Phys.org: Computer model helps support theory of asteroid Kamo'oalewa as ejecta from the moon	2024
ScienceAlert: This Crater Could Be Where Earth's 'Second Moon' Broke Off The First One	2024
AAS Nova: Sednoids: Echoes of a Rogue Planet in the Early Solar System?	2024
Sky & Telescope: "Planet X" May Have Left Our Solar System Billions of Years Ago	2023
MacMillan Space Centre: Ask An Astronomer - Lunar New Year of the Rabbit	2023
New Scientist: A long-lost planet could explain unexpectedly distant asteroids	2022

SERVICE

PROFESSIONAL Referees for AJ, ApJ, MNRAS, A&A, and Icarus

INVITED TALKS

New Horizons Science Plenary Meeting: Primordial Orbital Alignment of Sednoids	Aug. 2024
NAOJ: A Rogue Planet Hypothesis for the Formation of the Trans-Neptunian Solar System	May 2024
Tsinghua University: The Rogue Planet Hypothesis	Mar. 2024
Tsinghua University: Dynamics of TNOs Under the Influence of a Rogue Planet	Aug. 2023

As the speaker: CONFERENCES

- 1. Dynamics of Binary Planet within Star Clusters **Huang**, Zhu, & Kokubo. DPS #56, Boise (2024)
- 2. Primordial Orbital Alignment of Sednoids Huang, Gladman, & Hu. TNO 2024, Taipei (2024)
- 3. Dynamical Evolution of JuMBOs within Stellar Clusters Huang, Zhu, & Kokubo. DDA #55, Toronto (2024)
- 4. Primordial Orbital Clustering of Sednoids | Video Huang, & Gladman. DPS #55, San Antonio (2023)
- 5. A Gigantic Icy Body Reservoir Produced by an Early Rogue Planet | Abstract Huang, & Gladman. ACM 2023, Flagstaff (2023)
- 6. Steady State of a Planet-scattering Debris Disk Huang, & Gladman. DDA #54, East Lansing (2023)
- 7. Effect of a Rogue Planet on the Early Solar System | Video Huang, & Gladman. DPS #54, London (Ontario)(2022)
- 8. A Clearer View of the Primordial Kuiper Belt's inclination structure Huang, Gladman, & Volk. COSPAR #44, Athens (2022)
- 9. A Rogue Planet Populated the Distant Kuiper Belt | Video Huang, Gladman, & Beaudoin. DDA #53, New York (2022)

	10. Dynamics of the Retrograde Co Huang , Li, Li, & Gong. COOM				
	11. Four Billion Year Stability of the Huang , & Gladman. DDA #51,				
	12. Four Billion Year Stability of the Huang , & Gladman. DPS #52,				
	13. Primordial Stability of the Earth–Mars Belt Huang , & Gladman. 14th EPSC, virtual meeting (2020)				
	14. Dynamics of the Retrograde 1/ Huang, Li, Li, & Gong. DDA #4				
AWARDS AND SCHOLARSHIPS	Second Prize in the 10th National Zhou Peiyuan Mechanics Competition		2019 2018 2015		
	Yu Menglun Scholarship Yu Menglun Award for Science & Inn China National Scholarship	ovation	2014 2014 2013		
TEACHING	T.A. for Astro 310, UBC T.A. for Astro 310 & 311, UBC T.A. for Astro 101, UBC T.A. for Vibration theory, Tsinghua UTA. for Theoretical mechanics, Tsing		2021 2020 2019 2017 2016		
STUDENTS	Qingru Hu (胡清茹), Tsinghua (Undergraduate Student, Astronomy) Zhuoya Cao (曹卓雅), Tsinghua (Undergraduate Student, Physics)		2024 – Now 2024 – Now		
REFERENCES	Brett Gladman University of British Columbia Vancouver. BC. Canada	Wei Zhu (祝伟) Tsinghua University Beijing, China			

REFERENCES

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