

Yingtian “Bill” Chen

陈颖天 · 陳穎天

Email: ybchen(at)umich.edu
Website: yingtianchen.com
Version: February 2025

Education

- **University of Michigan Department of Astronomy** | Ann Arbor, US 2020 – 2026
M.S. and Ph.D. candidate in Astronomy and Astrophysics
- **Peking University School of Physics** | Beijing, China 2016 – 2020
B.S. in Physics (with honours)

Experience

- **Visiting Researcher**, MIT Kavli Institute | Cambridge, US 2019

Publications

- **10 publications in total:** citations > 110, h-index = 7
- **8 publications as first author:** citations > 100, h-index = 6

Publications as first author

1. **Chen**[✉], Li[✉], & Gnedin (2025) “Stellar streams reveal the mass loss of globular clusters”, *accepted for publication in ApJL*.
2. **Chen**[✉], Valluri, Gnedin, & Ash (2025) “Improved particle spray algorithm for modeling globular cluster streams”, *ApJS* **276**, 32.
3. **Chen**[✉] & Gnedin (2024) “Galaxy assembly revealed by globular clusters”, *OJAp* **7**, 23.
4. **Chen**[✉] & Gnedin (2024) “Catalogue of model star clusters in the Milky Way and M31 galaxies”, *MNRAS* **527**, 3692.
5. **Chen**[✉] & Gnedin (2023) “Formation of globular clusters in dwarf galaxies of the Local Group”, *MNRAS* **522**, 5638.
6. **Chen**[✉] & Gnedin (2022) “Modeling the kinematics of globular cluster systems”, *MNRAS* **514**, 4736.
7. **Chen**, Li[✉], & Vogelsberger (2021) “Effects of initial density profiles on massive star cluster formation in giant molecular clouds”, *MNRAS* **502**, 6157.
8. **Chen** & Ma[✉] (2021) “Novel pre-burst stage of gamma-ray bursts from machine learning”, *JHEAp* **32**, 78.

Other publications

9. Sike[✉] et al. [incl. **Chen**] (2025) “Resolving star cluster formation in galaxy simulations with cosmic ray feedback”, *to be submitted to AAS journals*.
10. Ash[✉], Valluri, **Chen**, & Bell (2024) “Stellar bars form dark matter counterparts in TNG50”, *ApJ* **976**, 189.
11. Pearson[✉], Bonaca, **Chen**, & Gnedin (2024) “Forecasting the population of globular cluster streams in Milky Way-type galaxies”, *ApJ* **976**, 54.

Honours and Awards

| | |
|--|-------------|
| • Rackham Conference Travel Grant | 2023 & 2024 |
| • Rackham International Student Fellowship | 2021 |
| • Weiming Physics Scholarship (未名物理学子) | 2020 |
| • Outstanding Graduate (北京市普通高等学校优秀毕业生) | 2020 |
| • First Prize & Best speaker, Xingcheng Forum (兴诚本科生学术论坛) | 2019 |
| • Huabao Funding for Undergraduate Research Program (本科生科研华宝基金) | 2018 |
| • National Scholarship (国家奖学金) | 2018 |
| • Pacemaker to Merit Student (三好学生标兵) | 2018 |
| • Outstanding Award & SIAM Award, Mathematical Contest in Modeling | 2018 |
| • Gold Medal, Chinese Physics Olympiad (全国中学生物理竞赛) | 2015 |

Talks

| | |
|--|-------------|
| • Invited talk, <i>DESI MWS telecon</i> Remote | 2024 |
| • Poster & flash talk, <i>DGSCS 2024</i> , University of Chicago Chicago, US | 2024 |
| • Seminar, Peking University, Tsinghua University, Shanghai Normal University, Shanghai Astronomical Observatory, Shanghai Jiao Tong University, Purple Mountain Observatory, Nanjing University, Zhejiang University Beijing/Shanghai/Nanjing/Hangzhou, China | 2024 |
| • Talk, <i>Astronomy graduate student lunch talk series</i> , University of Michigan Ann Arbor, US | 2021 – 2024 |
| • Invited talk, <i>Galaxy formation group meeting</i> , CCA, Flatiron Institute New York, US | 2024 |
| • Invited talk, University of Chicago Remote | 2024 |
| • Invited talk, <i>SMWL V Star Clusters Working Group meeting</i> Remote | 2023 |
| • Conference talk, <i>MODEST-23</i> , Northwestern University Evanston, US | 2023 |
| • Conference talk, <i>Great Lakes Clusters and Streams</i> , University of Michigan Ann Arbor, US | 2023 |
| • Talk, <i>Seminar for undergraduate students</i> , Peking University Beijing, China | 2019 |
| • Talk, <i>Xingcheng Forum</i> , Peking University Beijing, China | 2019 |
| • Talk, <i>Seminar for theoretical physics</i> , Fudan University Shanghai, China | 2019 |

Service

Professional service

| | |
|---|------------|
| • Referee: <i>ApJ</i> and <i>MNRAS</i> | Since 2023 |
| • Session co-chair: <i>DGSCS 2024</i> | 2024 |
| • Local organizing committee chair: <i>Great Lakes Clusters and Streams</i> | 2023 |
| • Code developer: ART, gala, galax, and galpy | Since 2024 |
| • Organizer: University of Michigan Stellar Halos Group meeting | Since 2024 |

University service

- **Organizer:** Astronomy graduate student lunch talks 2024 – 2025
- **Organizer:** Astrocoffee journal club 2022 – 2025
- **Chair:** University of Michigan Chinese astronomers networking group Since 2022
- **Graduate student instructor:** ASTRO 104, 106, and 115 2021 & 2024
- **Organizer:** Preliminary examination preparation club 2022 – 2023
- **Department bread baker** 2021 – 2022

Skills

- **Programming Languages:** C/C++, Python, Latex, MATLAB, HTML/CSS...
- **Software/packages:** ART, AREPO, GADGET, MPI, AGAMA, gala, galax, galpy, multiprocessing, NumPy, Matplotlib, SciPy, scikit-learn, PyTorch, Astropy, Git, Bootstrap...
- **Languages:** Mandarin Chinese (native), English (fluent)