Yingtian (Bill) Chen

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Education

The University of Michigan Department of Astronomy — Ann Arbor, MI, USA
Ph.D. in Astronomy — Sep. 2020 – Current

Peking University School of Physics — Beijing, China
B.S. in Physics (with honours) — Sep. 2016 – Jul. 2020

Chengdu Experimental Foreign Languages School — Chengdu, Sichuan, China
Middle and High School — Sep. 2010 – Jul. 2016

Experience

Massachusetts Institute of Technology Kavli Institute — Cambridge, MA, USA
Visiting Researcher — Jul. 2019 – Aug. 2019

Refereed Publication

[1] **Y. Chen**, H. Li, and M. Vogelsberger, "Effects of initial density profiles on massive star cluster formation in giant molecular clouds", *MNRAS*, vol. 502, pp. 6157–6169, 2021.

Teaching

- **Graduate Student Instructor** at the University of Michigan — Winter 2021
  Aliens (ASTRO 106)

Scholarships and Awards

- **Weiming physics scholarship** — 2020
- **Outstanding Graduates**
- **First Prize** and **Best speaker** in Xingcheng Forum — 2019
- **Huabao Funding for Undergraduate Research Program** — 2018
- **National Scholarship**
- **Pacemaker to Merit Student**
- **Outstanding Award** and **SIAM Award** in Mathematical Contest in Modeling

- **Gold Medal** in Chinese Physics Olympiad 2015

Talks

- **Evolution of giant molecular clouds.** Seminar for visiting students, Peking University 2019
- **Pre-burst Stage of Gamma-ray Bursts** Xingcheng Forum, Peking University 2019
- **Light Speed Variation from Gamma-ray Bursts** Fudan University 2019

Research Projects

- **Graduate research project** at the University of Michigan Sep. 2020 – Current
  Modelling globular cluster systems (GCSs) in cosmological context
  - *Developed GC formation model with spatial information.*
  - *Analyzed the radial distribution of GCSs in Milky Way-mass galaxies.*
  - *Investigating the connection between GCSs and the assembly history of host galaxies (ongoing).*
- **Research assistant** at Massachusetts Institute of Technology Jul. 2019 – Current
  Giant Molecular Clouds (GMCs) with different density profiles
  - *Simulated the evolution of GMCs from different initial density profiles.*
  - *Analyzed and proposed two star formation modes of GMCs.*
  - *Quantified and explained the kinetic evolution of massive star clusters.*
  - *Investigating the substructural properties of star clusters (ongoing).*
- **Undergraduate research program** at Peking University Mar. 2018 – Dec. 2019
  Light Speed Variation from Gamma-ray Bursts (GRBs)
  - *Analyzed the GRB data from the Fermi Gamma-ray Space Telescope.*
  - *Proposed a novel stage of GRBs based on a clustering method.*
  - *Improved the characterization method of cosmic light speed variation.*