

Bangzheng Sun (Tom)

✉ bsdnb@umsystem.edu

🌐 <http://www.bsun-astro.com>



Education

- 2020 – Now 📖 **Ph.D. in Astronomy**
Department of Physics and Astronomy, University of Missouri
Research advisor: Prof. Haojing Yan
Expected Graduation: 2026
- 2016 – 2020 📖 **B.Sc. in Astrophysics**
Department of Astronomy, University of Wisconsin - Madison
Thesis title: *X-ray Spectra and Light Curves of Cooling Novae and a Nova-Like*.
Research/thesis advisor: Dr. Marina Orio
- 2015 – 2016 📖 **Major in Mathematics and Applied Mathematics**
College of Sciences, China Jiliang University¹
- 2012 – 2015 📖 **High School Diploma**
Hangzhou Xuejun High School

Skills

- Languages 📖 Mandarin Chinese (native); English (proficient)
- Programming 📖 Python, Julia
- Software 📖 Matlab, Mathematica, \LaTeX , MS Office

Academic Publications

1. *X-ray Spectra and Light Curves of Cooling Novae and a Nova-Like*
B. Sun, M. Orio, A. Dobrotka, G. J. M. Luna, S. Shugarov, & P. Zemko
Monthly Notices of Royal Astronomical Society (MNRAS, Vol. 499, Pgs. 3006-3018), Oct. 2020.
doi: 10.1093/mnras/staa3012
2. *NICER Monitoring of Supersoft X-ray Sources*
M. Orio, A. Dobrotka, K. Gendreau, M. Giese, G. J. M. Luna, J. Magdolen, S. Pei, **B. Sun**, E. Behar, J. Mikolajewska, D. R. Pasham, & T. E. Strohmayer
The Astrophysical Journal (ApJ, Vol. 932, Pgs. 45-63), Jun. 2022.
doi: 10.3847/1538-4357/ac63be

Awards and Achievements


- 2020.5 📖 **Thesis of Distinction**, Department of Astronomy, University of Wisconsin - Madison
- 2016.2 📖 **College Academic Scholarship**, College of Sciences, China Jiliang University

¹Transferred to the University of Wisconsin - Madison in 2016.

Academic Posters & Presentations


1. *X-ray Spectra and Light Curves of Cooling Novae and a Nova-Like.*
B. Sun (Presenter), M. Orio, A. Dobrotka, G. J. M. Luna, P. Zemko
235th Meeting of the American Astronomical Society (AAS), Honolulu, Hawaii, U.S.A., 2020.1 (*Abstract*)
2. *NICER Observation of the Supersoft X-Ray Binary CAL 83.*
M. Orio (Presenter), M. Dobrotka, S. Pei, **B. Sun**, J. Mikolajewska, J. -U. Ness
Conference Compact White Dwarf Binaries, Yerevan, Armenia, 2019.9 (*Abstract*)
3. *The Complexity of Seeing Complex C with the UW's Small Radio Telescope.*
J. Beran, C. Campbell, K. Eierman, M. Kalscheur, M. Klein, N. Schnoor, **B. Sun**, C. Swiggum, S. Szotkowski, D. Yoder, B. Babler, S. Stanimirovic²
2019 University of Wisconsin-Madison Undergraduate Symposium, Madison, Wisconsin, U.S.A., 2019.4 (*Abstract, Page No. 117*)
4. *Probing Magnetic Field Strength Using Multi-frequency Polarized Synchrotron Intensity Gradients.*
Z. Lu (Presenter), V. Lazarian, K.H. Yuen, **B. Sun**, Y. Hu, A. Lazarian
231th Meeting of the American Astronomical Society (AAS), Washington, D.C., U.S.A., 2018.1 (*Abstract*)
5. *A Survey towards Magnetic Field Morphology in Molecular Clouds: Application of Gradient Technique, A New and Versatile Method*
B. Sun (Presenter)
Astronomy Graduate Lecture for Undergraduates (AstroGLU), Madison, Wisconsin, U.S.A., 2017.10
6. *Tracing Magnetic Field using Gradient Technique: Viewing from Observational Data.*
B. Sun (Presenter), A. Lazarian
2017 Mid-West Magnetic Field Workshop (MWMF), Madison, Wisconsin, U.S.A., 2017.5

Teaching Experiences

2020 – Now  **Teaching Assistant** in college-level physics
Department of Physics and Astronomy, University of Missouri

Other Publications

Books

2017.9  **Reading the Stars - Basic Astronomy Tutorial and Observation Practice for High School Students**
ISBN: 978-7-213-08289-4
Zhejiang People Publishing House, P.R.China

Articles

2017.5-11  **"Introduction to Observation on Milky Way and Extragalactic Objects"** and three other articles on popular astronomy.
*Astronomical Commonsense*³. [Links to Article 1](#) [Article 2](#) [Article 3](#) [Article 4](#)

²All members contributed to the presentation with equal efforts.

³An online journal in simplified Chinese.

Extracurricular Activities and Other Skills

Other Presentations

1. **"Popularizing Astronomy Education in High Schools with Increasing Number of Local Clubs"**
China Astronomical Associates Development Conference, Wuhan, Hubei, P.R.China, 2017.7
2. **"My Three-Aspect Consideration of China Jiliang University"**
China Jiliang University 2015 Opening Ceremony, Hangzhou, Zhejiang, P.R.China, 2015.9

Photography and Filmmaking

1. Photography works (including astrophotography), please see personal page
2. Short film production: **"MADISON"**, 2020.3
3. Video content creation: **"Astrophel and Stella"**, 2021.4
4. Short film production: **"That Star has a Shape"**, 2022.4