Mingyuan Hu

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Education

2020–25[*]   **Ph.D.** in Mathematics, Northwestern University
Supervisor: Eric Zaslow

2016-20   **B.Sc.** in Mathematics, Peking University
Supervisor: Bohan Fang
Thesis: *Aboreal Singularities and Applications in Symplectic Geometry*

Research Interest

Mathematical physics and Symplectic topology. Homological mirror symmetry, microlocal sheaf theory, Fukaya categories, (open) Gromov-Witten theory, skein theory and cluster theory.

Papers

1. **Hu, Mingyuan**. A Proof of the Pentagon Relation for Skeins. *arXiv e-prints.* arXiv: 2401 . 10817 (Jan. 2024).

2. **Hu**, M., Schrader, G. & Zaslow, E. Skeins, clusters and wavefunctions. *arXiv e-prints.* arXiv: 2312 . 10186 (Dec. 2023).

Invited Talks

. Stanford University, Symplectic Geometry Seminar. Oct. 14, 2024.

. Columbia University, Enumerative Geometry Seminar. Oct. 4, 2024.

. Northwestern University, Geometry and Mathematical Physics Seminar. Sept. 26, 2024.

. Kansas State University, M-Seminar. Sept. 13, 2024.

. Yau Mathematical Sciences Center, Tsinghua University. YMSC Topology Seminar. Dec. 26, 2023.

. BICMR, Peking University. Symplectic Geometry and Mathematical Physics Seminar. Dec. 5, 2023.

Posters

. International Congress of Basic Science (ICBS), BIMSA, Beijing, China. July 2024.

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[*]Expected.

(Co-)organized seminars

. *Sheaf Quantization Seminar.* Northwestern University, 2024 Fall.

Teaching

Fall 2024	Math 250-0, Elementary Differential Equations, TA
Fall 2024	Math 331-1, Abstract Algebra, TA
Winter 2023	Math 228-1, Multivariable Differential Calculus for Engineering, TA
Fall 2023	Math 228-1, Multivariable Differential Calculus for Engineering, TA
Winter 2022	Math 470-2, Algebra, TA
Winter 2022	Math 440-2, Geometry and Topology, TA
Fall 2022	Math 470-1, Algebra, TA
Fall 2022	Math 440-1, Geometry and Topology, TA

Miscellaneous

- 5th Dan in WeiQi (Go)

- Captain of the Peking University Varsity Chinese Martial Arts Team (2018-2020)