Jieyin Yang

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Education

University of Chinese Academy of Sciences *Aug. 2021 – present*
Ph.D. in Applied Mathematics
Advisor: Prof. Xiaohong Jia
GPA: 3.91/4.0

Columbia University *Jan. 2020 – Jun. 2020*
Visiting Student in Engineering and Applied Sciences

University of Chinese Academy of Sciences *Aug. 2017 – Jun. 2021*
B.S. in Mathematics and Applied Mathematics
GPA: 3.95/4.0, Rank: 2/52

Research Interests

Computer Graphics, Computer Aided Design, Computational Algebraic Geometry

Publications

Overlap Region Extraction of Two NURBS Surfaces.
Jieyin Yang, Xiaohong Jia
ACM Transactions on Graphics (Proc. SIGGRAPH Asia 2025)

Boolean Operation for CAD Models Using a Hybrid Representation.
Yingyu Yang, Xiaohong Jia, Bolun Wang, **Jieyin Yang**, Shiqing Xin, Dong-Ming Yan
ACM Transactions on Graphics (Proc. SIGGRAPH 2025)

Computing the Intersection of Two Ellipsoids Based on a Fast Algebraic Topology Determination Strategy.
Xiao Chu, Kai Li, Xiaohong Jia, **Jieyin Yang**, Jiarui Kang
Computer Aided Geometric Design (Proc. GMP 2025)

Accurate and Robust Registration of Low Overlapping Point Clouds.
Jieyin Yang, Mingyang Zhao, Yingrui Wu, Xiaohong Jia
Computer & Graphics, 2024

Topology Guaranteed B-Spline Surface-Surface Intersection.
Jieyin Yang, Xiaohong Jia, Dong-Ming Yan
ACM Transactions on Graphics (Proc. SIGGRAPH Asia 2023)

A Robust and Efficient Intersection Algorithm for NURBS Surfaces: Handling Small Loops and Tangent Intersections.
Jieyin Yang, Xiaohong Jia
ACM Transactions on Graphics (under revision)

Honors and Awards

2025	**CSIAM Applied Mathematics Achievement Award**: Surface Intersection Method and Software for Geometry Engine
2024	**Doctoral National Scholarship**
2023	**Hua Luogeng Scholarship of AMSS**
2021-25	**Merit Student of CAS**
2020	**Undergraduate National Scholarship**

Skills

Programming	C++, Matlab, Maple
Math	Computational geometry, Symbolic computation, Linear algebra, Numerical optimization