

## Gao Chen

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### CONTACT INFORMATION

Department of Mathematics, University of Wisconsin-Madison,  
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### RESEARCH INTERESTS

Complex Geometry, Quaternionic Geometry and Octonionic Geometry

### EDUCATION

#### **Stony Brook University**

Ph.D. in Mathematics, May 2017

#### **University of Science and Technology of China**

B.A. in Mathematics, June 2012

### EMPLOYMENT

2019-            Assistant Professor            University of Wisconsin-Madison  
2017-2019    Postdoctoral Member            Institute for Advanced Study

### PUBLICATIONS

Gao Chen, *Supercritical deformed Hermitian-Yang-Mills equation*, Preprint, arXiv:2005.12202, May 2020.

Gao Chen, Jeff Viaclovsky and Ruobing Zhang, *Collapsing Ricci-flat metrics on elliptic  $K3$  surfaces*, Preprint, arXiv:1910.11321, October 2019.

Gao Chen, *On  $J$ -equation*, Preprint, arXiv:1905.10222, May 2019.

Gao Chen,  *$G_2$  manifolds with nodal singularities along circles*, accepted by the Journal of Geometric Analysis.

Gao Chen, *Shi-type estimates and finite time singularities of flows of  $G_2$  structures*, The Quarterly Journal of Mathematics, Volume 69, Issue 3, 1 September 2018, Pages 779-797.

Gao Chen, *Rate of asymptotic convergence near isolated singularity of  $G_2$  manifold*, The Journal of Geometric Analysis, Volume 28, Issue 4, December 2018, Pages 3139-3170.

Gao Chen and Xiuxiong Chen, *Gravitational instantons with faster than quadratic curvature decay (III)*, accepted by Mathematische Annalen.

Gao Chen and Xiuxiong Chen, *Gravitational instantons with faster than quadratic curvature decay (II)*, Journal für die reine und angewandte Mathematik (Crelles Journal), Volume 2019, Issue 756, Pages 259-284.

Gao Chen and Xiuxiong Chen, *Gravitational instantons with faster than quadratic curvature decay (I)*, Preprint, arXiv:1505.01790, May 2015.

### CONFERENCE TALKS

Special holonomy and branes, American Institute of Mathematics. (October 2020)

Trends in Modern Geometry, Tsinghua University. (June 2019)

Simons Collaboration on Special Holonomy in Geometry, Analysis, and Physics, Stony Brook University (September 2018)

American Mathematical Society Eastern Sectional Meeting, Northeastern University (April 2018)

Simons Collaboration on Special Holonomy in Geometry, Analysis, and Physics, Duke University (April 2018)

Simons Collaboration on Special Holonomy in Geometry, Analysis, and Physics, Simons Center for Geometry and Physics (September 2017)

Kaehler-Einstein metrics, Palazzone di Cortona (May 2017)

The Pacific Rim Conference on Complex and Symplectic Geometry XI, University of Science and Technology of China (July 2016)

Riemannian Convergence Theory, Simons Center for Geometry and Physics (November 2015)

Conference on Analysis and Geometry, University of Science and Technology of China (August 2015)

#### INVITED TALKS

Boston University (September 2020)

Chinese Academy of Science (June 2019)

University of Bath (February 2019)

University of Wisconsin-Madison (November 2018)

Stanford University (November 2018)

University of California-Berkeley (August 2018)

University of Michigan (March 2018)

New York University (March 2018)

Princeton University (February 2018)

University of Oregon (January 2018)

Rochester University (October 2017)

Chinese Academy of Sciences (June 2017)

The Fields Institute for Research in Mathematical Sciences (March 2017)

Eidgenössische Technische Hochschule Zürich (November 2016)

Rutgers University (October 2016)

Harvard University (September 2016)

University of Wisconsin-Madison (October 2015)

University of California-Irvine (October 2015)

Stony Brook University (September 2015)

TEACHING EXPERIENCE	Fall	2020	Lecturer, Differential Geometry
	Spring	2020	Lecturer, Differentiable Manifold
	Fall	2019	Lecturer, Elementary Topology
	Spring	2017	Teaching Assistant, Calculus A
	Fall	2016	Teaching Assistant, Introduction to Advanced Mathematics
	Spring	2016	Teaching Assistant, Calculus I
	Fall	2015	Teaching Assistant, Applied Algebra
	Spring	2015	Teaching Assistant, Calculus A, Applied Real Analysis
	Fall	2014	Teaching Assistant, Calculus A
	Spring	2014	Teaching Assistant, Calculus B, Dynamics and Chaos
	Fall	2013	Teaching Assistant, Calculus C
	Spring	2013	Teaching Assistant, Introduction to Calculus
	Fall	2012	Teaching Assistant, Calculus C

ACADEMIC SERVICE Member of graduate advising committee in University of Wisconsin-Madison.

Member of Visiting International Student program advising committee in University of Wisconsin-Madison.

Referee for Journal of Differential Geometry.

Referee for International Journal of Mathematics.

Referee for International Journal of Geometric Methods in Modern Physics.