

Curriculum Vitae

Antoine Song

Princeton University, Fine Hall, Washington Rd,
Princeton NJ 08544
USA

E-mail : aysong@princeton.edu

Date of birth : July 18th of 1992 (Paris)
Nationality : French

Education

2015–2019 **Ph.D. in Mathematics**, Princeton University, Thesis advisor : Fernando C. Marques.

2014–2015 **Mathematics M.S.**, Université Pierre et Marie Curie (Paris 6)

2012–2014 **Mathematics B.S.**, Université Pierre et Marie Curie (Paris 6)

2012–2015 **Élève normalien**, Ecole Normale Supérieure de Paris.

2010–2012 **Preparatory classes**, Lycée Henri IV.

2010 **Baccalauréat with major in Science**, first class honours, Lycée Henri IV.

Research

- *A dichotomy for minimal hypersurfaces in manifolds thick at infinity*,
arXiv :1902.06767
- *Existence of infinitely many minimal hypersurfaces in closed manifolds*,
arXiv :1806.08816
- *Equidistribution of minimal hypersurfaces for generic metrics*,
(with F. C. Marques and A. Neves), to appear in Invent. Math., arXiv :1712.06238
- *On the existence of minimal Heegaard surfaces*,
(with D. Ketover and Y. Liokumovich), in preparation

- *Local min-max surfaces and strongly irreducible minimal Heegaard splittings*, arXiv :1706.01037
- *Appearance of stable spheres along the Ricci flow in positive scalar curvature*, to appear in Geom. Topol., arXiv :1611.09747
- *Embeddedness of least area minimal hypersurfaces*, J. Differential Geom., vol. 110, no. 2, pp. 345-377 (2018), arXiv :1511.02844
- *A maximum principle for self-shrinkers and some consequences*, arXiv :1412.4755

Conferences and seminars

Conference talks :

- Workshop in Geometric Analysis, IHP, Paris, France, 12/2018
- Oberwolfach Workshop in Geometry, Germany, 06/2018
- ICMS Workshop in Geometric Analysis, Edinburgh, Scotland, 05/2018
- VIII Workshop on Differential Geometry, Praia do Francês, Brazil, 03/2018

Seminar talks :

- Harvard geometry seminar, 02/2018
- Institut Fourier, geometry seminar, 12/2018
- Fields institute geometric analysis colloquium, 11/2018
- Rutgers University non-linear analysis seminar, 11/2018
- IAS seminar for the special year in variational methods, 10/2018
- Stanford University geometry seminar, 10/2018
- UC Berkeley geometry seminar, 10/2018
- CUNY geometry seminar, 03/2018
- UC Berkeley topology seminar, 10/2017
- UCSB differential geometry seminar, 10/2017
- University of Chicago differential geometry seminar, 10/2017
- UC Berkeley geometry seminar, 04/2017
- University of Pennsylvania differential geometry seminar, 02/2017
- Princeton University differential geometry seminar, 03/2017
- Université Paris-Diderot-Paris 7 differential geometry seminar, 05/2015

Research interests

Differential Geometry, Geometric PDE

Miscellaneous

- Clay fellowship, 2019-2024
- Concours général de mathématiques, 3rd prize
- French mathematics olympiads, 2nd prize