

Wenyuan YANG

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Positions

Assistant Professor, Beijing International Center for Mathematical Research (BICMR), Peking University,
Mar. 2014 – present.

Visiting Scholar, Beijing International Center for Mathematical Research (BICMR), Peking University,
Oct. 2013 – Feb. 2014.

PostDoc. Université Paris-Sud 11, Sep. 2011 – Sep. 2013.

Education

Ph.D. Mathematics, Université de Lille 1, Sep 2008 – May 2011.

Thesis Advisor: Leonid Potyagailo.

Thesis Title: Peripheral structures of relatively hyperbolic groups.

M.S. Mathematics, Hunan University, Changsha, China, 2005 – 2008.

B.S. Mathematics, Hunan University, Changsha, China, 1999 – 2003.

Research Interests

Geometric group theory and Kleinian groups

Preprint

- [1] I. Gekhtman, V. Gerasimov, L. Potyagailo and W.Y. Yang. *Martin boundary covers Floyd boundary*. Preprint, arXiv: 1708.02133.
- [2] Wenyuan Yang. *Genericity of contracting elements in groups*. Preprint, arXiv: 1707.06006.
- [3] Leonid Potyagailo and Wenyuan Yang. *Hausdorff dimension of boundaries of relatively hyperbolic groups*. Preprint, arXiv:1609.01763.
- [4] Wenyuan Yang, *Patterson-Sullivan measures and growth of relatively hyperbolic groups*, Preprint, 2013. Arxiv: 1308.6326
- [5] Wenyuan Yang, *Combination of fully quasiconvex subgroups and its applications*, Preprint, 2012 Arxiv: 1205.2994.

Publications

- [1] Wenyuan Yang. *Statistically convex-cocompact actions of groups with contracting elements*. To appear in International Mathematics Research Notices, arXiv: 1612.03648.

- [2] Wenyuan Yang. *Purely exponential growth of cusp-uniform actions*. To appear in Ergodic Theory and Dynamical Systems, Arxiv: 1602.07897.
- [3] Jeremy Osborne and Wenyuan Yang. *Statistical hyperbolicity of relatively hyperbolic groups*. Algebraic & Geometric Topology, 16 (2016) 2143–2158.
- [4] Wenyuan Yang, *Growth tightness for groups with contracting elements*, Math. Proc. Cambridge Philos. Soc., 157(2014), 297-319.
- [5] Wenyuan Yang, *Peripheral structures of relatively hyperbolic groups*, Journal für reine und angewandte Mathematik, 689(2014), 101-135.
- [6] Wenyuan Yang, *Limit sets of relatively hyperbolic groups*, Geom. Dedicata., 156(2012), 1-12.
- [7] Wenyuan Yang, *Separable subgroups have bounded packing*, Proc. Amer. Math. Soc., 139(2011), 3217-3218.
- [8] Wenyuan Yang and Yueping Jiang, *Limit sets and commensurability of Kleinian groups*, Bull. Aust. Math. Soc., 82(1-9), 2010.

Conference and Seminar Talks

2017

Genericity of contracting elements in groups, Geometry and Topology workshop at Soochow University, 23-28 July. 2017, Soochow

Asymptotic geometry of statistical convex-cocompact actions, Geometry and Topology workshop at Tsinghua University, 9 April. 2017, Beijing

3 Lectures on “Introduction to hyperbolic groups”, Conference on Graphs and related topics at Fudan University, 14-17 Feb. 2017, Shanghai

2016

Counting problems in Geometric Group Theory, Colloquiums at Beijing Normal University, 16 Dec. 2016, Beijing

Growth tightness and contracting elements, Seminars at AMSS, Chinese Academy of Sciences, 17 Nov. 2016

Asymptotic geometry of statistical convex-cocompact actions, 70th Annual Meeting of Korean Mathematical Society, 22-23 Oct 2016, Seoul, South Korea

2-hour lectures on “applications of Patterson-Sullivan measures”, Geometric Group Theory workshop, 15-16 Oct 2016, Soochow University

Asymptotic geometry of groups with a contracting element, Annual Meeting of Chinese Mathematical Society, Sep. 23-24, Inner Mongolia University

Asymptotic geometry of groups with a contracting element, Geometric and algebraic topology seminar, 21-23 July 2016, Beijing Capital Normal university

8-hour lectures on “Hyperbolic groups and boundaries”, The Third China-Russia Workshop on Knot Theory and Related Topics, 10-14 July 2016, Soochow University

Purely exponential growth of cusp-uniform actions, International Workshop on Low Dimensional Topology, 6-7 May 2016, Dalian University of Technology

Hausdorff dimension of boundaries of relatively hyperbolic groups, Workshop on Teichmüller Theory and Low-Dimensional Topology, 11-15 Jan 2016, Tsinghua Sanya International Mathematics Forum

2015

Hausdorff dimension of boundaries of relatively hyperbolic groups, Topology & Dynamics seminar, Université Lille 1, France, 23/10/2015.

Hausdorff dimension of boundaries of relatively hyperbolic groups, GAGTA 2015 - Geometric and Asymptotic Group Theory with Applications, Luminy, France, 14/09/2015-18/09/2015.

4-Hour Minicourse on "Hyperbolic groups", Workshop on MCGs and related topics, Xi'an Jiaotong University, 16/08/2015-20/08/2015.

Hausdorff dimension of boundaries of relatively hyperbolic groups, Seminar Talk, Beihang University, Beijing, 26/05/2015.

Hausdorff dimension of boundaries of relatively hyperbolic groups, Conference on Algebraic Topology & Geometric Topology, Beijing, 29/05/2015-31/05/2015.

Rotating family with applications to MCGs after Dahmani-Gruirardel-Osin, Youth forum in Topology, Tongji University, Shanghai, 15/05/2015-27/05/2015.

6-hour Lectures on "Patterson-Sullivan measures of relatively hyperbolic groups", Waseda University, Japan 15/03/2015-22/03/2015.

2014

Boundary of hyperbolic groups (II), Seminars at AMSS, Chinese Academy of Sciences, 28/10/2014.

Boundary of hyperbolic groups (I), Seminars at AMSS, Chinese Academy of Sciences, 14/10/2014.

Growth of quotients of relatively hyperbolic groups, The Chinese Mathematical Society Annual Conference, HeNan Normal University, 20/09/2014.

Growth of quotients of relatively hyperbolic groups, Poster session, Hyperbolic geometry and geometric group theory, Tokyo, Japan, 29/07/2014-05/08/2014.

Growth tightness for groups with contracting elements, Geometry and Topology Seminar, Capital Normal University, 1. 04/06/2014.

before 2014

Growth tightness of groups with nontrivial Floyd boundary, Université de Lille 1, Geometrie & Dynamique Seminar, March 2013.

Combination of fully quasiconvex subgroups and its applications Université Paris-Sud 11, Théorie Géométrique des Groupes Seminar, Feb. 2013.

Growth of quotients of relatively hyperbolic groups, Geometric and Dynamical Aspects of Discrete Groups, Université de Lille 1, Sep 2013.

Growth tightness of groups with nontrivial Floyd boundary, Peking University, Geometry & Topology Seminar, Nov 2013.

Combination of fully quasiconvex subgroups and its applications. Université Joseph Fourier, Facets of discrete groups, Grenoble, Dec. 2012.

Combination of fully quasiconvex subgroups and its applications. Hunan University, Changsha, China, June. 2012.

Peripheral structures of relatively hyperbolic groups. Paris 6 Jussieu, Parole aux jeunes chercheurs, Nov. 2011.

Peripheral structures of relatively hyperbolic groups. Université Paris-Sud 11, Théorie Géométrique des Groupes Seminar, Oct. 2011.

Peripheral structures of relatively hyperbolic groups. Université de Lille 1, Geometrie & Dynamique Seminar, Nov. 2010.

Limit sets of relatively hyperbolic groups. Hunan University, Complex Hyperbolic Geometry Conference, Changsha, China, July 2010.

Limit sets and commensurability of Kleinian groups. Université du Littoral, Journées Doctorants de Mathématiques Nord Pas de Calais, April 2010.

Limit sets of relatively hyperbolic groups. Université de Lille 1, Geometrie & Dynamique Seminar, Feb. 2010.

Honors, Awards, & Fellowships

The Thousand Young Talents Program Award from Chinese government. (2014.3 - 2017.3).

Postdoc Fellowship of ERC starting grant GA 257110 "RaWG" (2011.9 - 2013.9).

China-funded Postgraduates Studying Aboard Program for Building Top University (2008.9 - 2011.9).

Oberwolfach Leibniz Graduate Students Grant Mathematisches Forschungsinstitut Oberwolfach, Germany (2010).

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