

## CURRICULUM VITAE

### Hui-Chun Zhang

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#### **Current Position:**

Associate Professor, Sun Yat-sen University

#### **Personal Data:**

Born: December 16, 1980,      Citizenship: Chinese

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building 608, Xingang Xi Road No.135, Haizhu, Guangzhou, P. R. China

#### **Education:**

B.A. in Mathematics, University of Wuhan, Wuhan, China

M.A. in Mathematics, Sun Yat-sen University, Guangzhou, China

Ph.D. in Mathematics, Sun Yat-sen University, Guangzhou, China

#### **Academic positions held:**

- Assistant Professor, Sun Yat-sen University, 7/2011 -12/2014
- Instructor, Shandong University of Finance, 9/2002 - 7/2006

#### **Invited talks (selected):**

- The 2016' year conference of the Chinese Mathematical Society (CMS),

Hohhot, Sept. 2016.

- The conference on Analysis and Geometry, Hefei, August, 2015.
- The third conference on Geometry and Topology of Sub-manifolds, Wuhan, Oct, 2014
- The 2013' year conference of the Chinese Mathematical Society (CMS), Taiyuan, Oct. 2013.
- Interactions Between Analysis and Geometry, Workshop I: Analysis on Metric Spaces, Institute for Pure and Applied Mathematics (IPAM) in UCLA, March, 2013.
- International Conference of Differential Geometry and Nonlinear PDEs, Hunan Normal University, Changsha, China, May, 2012.

**Publications (selected):**

1. Local Li-Yau's estimates on  $RCD^*(K,N)$  metric measure spaces (with Xi-Ping Zhu). *Calc. Var. PDE* 55 (2016), no.4, Paper No.93, 30pp.
2. Sharp spectral gaps on metric measure spaces (with Yin Jiang) *Calc. Var. PDE* 55 (2016), no.1, Art.14, 14pp.
3. Hamilton's gradient estimates and a monotonicity formula for heat flows on metric measure spaces (with Renjin Jiang), *Nonlinear Anal.*, 131(2016), 32-47.
4. A note on Liouville type theorem of elliptic inequality  $\Delta u + u^\sigma \leq 0$  on Riemannian manifolds, *Potential Anal.*, 43 (2015), no 2. 269-276.
5. Sharp spectral gap and Li-Yau's estimate on Alexandrov spaces (with

- Zhongmin Qian and Xi-Ping Zhu), *Math. Z.*, 273(3-4)(2013) ,1175-1195.
6. Yau's gradient estimates on Alexandrov spaces (with Xi-Ping Zhu), *J. Diff. Geom.*, 91(3) (2012), 445-522.
  7. Rigidity of manifolds with Bakry-Émery Ricci curvature bounded below (with Yan-Hui Su). *Geom. Dedicata* 160 (2012), 321-331.
  8. On a new definition of Ricci curvature on Alexandrov spaces (with Xi-Ping Zhu), *Acta Math. Sci. Ser. B Engl. Ed.* 30(6) (2010), 1949-1974.
  9. Ricci curvature on Alexandrov spaces and rigidity theorems (with Xi-Ping Zhu), *Comm. Anal. Geom.* 18(3) (2010), 503–553.
  10. Lower bounds for the first eigenvalue on compact manifolds (with Yu Min Shi), (in Chinese) *Chinese Ann. Math. Ser. A* 28(6) (2007), 863-866.
  11. Lower bounds for the first eigenvalue of the  $p$ -Laplace operator on compact manifolds with nonnegative Ricci curvature. *Adv. Geom.* 7(1) (2007), 145-155.