Curriculum Vitae

Seonghyeon Jeong

Personal Information

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Education

- Michigan State University (09/2016 $\sim$)

  Ph.D in Mathematics

  Advisor : Jun Kitagawa
- Hong Ik University (03/2011 $\sim$ 08/2016)

  B.S in Mathematics Education

Research Interests

My research area are optimal transport and related PDEs. Especially, my researches are about optimal transport problems with general cost functions in dynamic settings, MTW type conditions and regularity theory of Monge-Ampère type equations.

Awards and Fellowships

- Silver prize in University Students Contest of Mathematics (33rd, 34th)

  Korea Mathematical Society (KMS)

  Korea Institute for Advanced Study (KIAS)

  2014 (33rd), 2015 (34th)
- College Scholarship (Undergraduate)

  Hong Ik University

  2014 (FS), 2015 (SS, FS), 2016 (SS)

- University fellowship (Graduate)
  Michigan State University
  2017(Summer)

Conference and Seminars attended

- Foundation for Mathematical Challenges
  Korea Institute for Advanced Study (KIAS)
- Student PDE Seminar
  Michigan State University
- Riviere-Fabes Symposium (2019)
  University of Minnesota
- Workshop on Free Boundary Problems
  Columbia University in the City of New York
- SIAM PDE Webinar
  SIAM (Online)
- MBI Optimal Transport Workshop
  Ohio State University Mathematical Biosciences Institute (Online)
- 2020 Fields Medal Symposium
  The Fields Institute for Research in Mathematical Sciences
- 2020 CMS winter meeting
  CMS (Online)

Seminar talks

- Partial Regularity of Solutions of the Monge-Ampère Equations
  Student PDE Seminar, MSU, 2018
- Underlying Geometry of Optimal Transport
  Student Geometry/Topology Seminar, MSU, 2020
- Strong MTW condition to local Hölder regularity in generated Jacobian equations
  MPHA Seminar, TAMU, 2020
- Equivalence of the synthetic MTW conditions
  CMS winter meeting Optimal transport and applications session, CMS, 2020

Research and Publication

- Local Hölder regularity of solutions to generated Jacobian equations

  ArXiv : 2004.12004

  Submitted to the journal 'Pure and Applied Analysis', Under review.

- Synthetic MTW conditions and their equivalence under mild regularity assumption on the cost function

  ArXiv : 2010.14471