Minsung Kim

Contact Information

Faculty of Mathematics and Computer Science
Nicolaus Copernicus University

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Research Interests

Ergodic theory / Parabolic dynamics and its connections with number theory, geometry and representation theory. / Random walks and its applications.

Academic Appointment

Nicolaus Copernicus University, Torun, Poland

- Research associate. Jan. 2021 - Dec. 2021
  (Mentor : Professor. Krzysztof Frączek)

Education

University of Maryland - College Park

- Ph.D. Mathematics. Dec. 2020
  (Advisor : Professor. Giovanni Forni.)

M.S. Mathematics, North Carolina State University. May 2013
(Advisor: Professor. Robert H. Martin, Jr.)

B.S. Mathematics education, Pusan National University. Aug 2011
(Advisor: Professor. Jae Keol Park)

Papers and Publications

1. Effective equidistribution for generalized higher step nilflows. preprint
arXiv:2001.09789

2. Limit theorem for higher rank action on Heisenberg manifolds. preprint
arXiv:2007.03803

Talks

Ergodic theory and Dynamical systems, Nicolaus Copernicus University Mar 2021
(2 talks) Torun, Poland Feb 2021

Workshop in Dynamical Systems and Related Topics, Penn State University Sep 2019

Poster presentation: "Effective equidistribution of nilflows"
Midwest Dynamical Systems Conference, University of Illinois of Chicago Nov 2019
School on Dynamical Systems, ICTP, Trieste, Italy July 2018

Selective Conference Attended

Workshop on Dynamical Systems and Related Topics, Penn State University. Sep 2019

Workshop on Dynamics of Parabolic Flows, University of Zurich. July 2019

Anisotropic Spaces and their Applications to Hyperbolic and Parabolic Systems, Oberwolfach. June 2019

From order to chaos, Centro di Ricerca Matematica Ennio De Giorgi, Pisa, Italy, April 2018

Spectral Theory of Dynamical Systems and Related Topics, CIRM, Marseille Luminy, France, Oct 2016

Teaching Experience

Teaching Assistant. UMCP.

- Sole Contact Instructor
  - *Introduction to Probability (MATH 111)* Spring 2014
- Discussion Leader
  - *Calculus II (MATH 141)* Fall 2014, Spring 2015
  - *Differential Equations for Scientists and Engineers (MATH 246)* Sp 2016,20
  - *Calculus for Life Sciences II (MATH 131)* Spring 2017
  - *Calculus III (MATH 241)* Fall 2018, 2019, 2020
- Grader

  Advanced Calculus 1,2 (MATH 410, 411), Introduction to Dynamics and Chaos (MATH 452), Introduction to Topology (MATH 432), Differential Forms and Their Applications (MATH 437), Real Analysis I (MATH 630), Dynamical systems I* (MATH 642), Differential Geometry* (MATH 740)* * for grad course.
- Directed Reading Program Mentor

  Rebecca Hsu, Riemann mapping Theorem. Summer 2014

Lecture Assistant. NCSU.

- Instructor
  - *Contemporary Mathematics (MA 103)* Summer II 2012
- Grader
  - *Introduction to Finite Mathematics with Applications (MA 114)* Spring 2013
  - *Calculus for Life and Management Sciences (MA 231)* Fall 2012

Visits

Visiting doctorant, Institut de Mathematiques de Jussieu-Paris Rive Gauche
Oct 2017 - Août 2018, Jan 2019 - Juin 2019

Experience

Student Dynamics Seminar Organizer, University of Maryland Fall 2015 - Fall 2016

University of Hawaii at Hilo, Exchange student, Mathematics. Fall 2009 - Spring 2010

Republic of Korea Army, completion of military service July 2006 - July 2008.

Langulage

Korean (native), English (fluent), French (elementary), Polish (beginner)