# Minsung Kim

| | |
|---|---|
| CONTACT INFORMATION | Department of Mathematics<br>University of Maryland - College Park |

1301 Mathematics Building          **mkim16@umd.edu**
College Park, MD 20742-4015
United States

**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
  (Advisor : Professor. Krzysztof Frączek)

**EDUCATION**

**University of Maryland - College Park**

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

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

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

B.S. Mathematics education, Pusan National University. Aug 2011

**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**

Workshop in Dynamical Systems and Related Topics, Penn State University   Sep 2019
"Effective equidistribution of nilflows"

*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

*Student Dynamics Seminar:*
Conjugacy of nilflows, Université Diderot Paris 7    Feb 2018

Effective equidistribution of Nilflows, Université Diderot Paris 7    Oct 2017

Global rigidty of a higher rank group actions, University of Maryland,    Sep 2016

| | |
|---|---|
| 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

| | |
|---|---|
| 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 (intermediate), Polish (elementary) |