

Donguk (David) Rhee

EDUCATION

Candidate for Master of Mathematics, Combinatorics and Optimization
University of Waterloo, Waterloo, ON, Canada
Thesis advisor: Kevin Purbhoo

Bachelor of Mathematics, Combinatorics and Optimization/Pure Mathematics
University of Waterloo, Waterloo, ON, Canada

HONORS

Ontario Graduate Scholarship valued at \$10000 (2011–2012)
Alexander Graham Bell Canada Graduate Scholarship valued at \$17500 (2010–2011)
Top 25, William Lowell Putnam Mathematical Competition (2008)
R. G. Stanton Scholarship valued at \$25000 (2006–2010)
Bronze and Silver medal, International Mathematical Olympiad (2005, 2006)
First Place, Canadian Mathematical Olympiad (2006)

PUBLICATIONS

Rhee, Donguk (2011) Cyclic Sieving Phenomenon. The Waterloo Mathematics Review. issue 1, 3–8
Lo, Jerry, and Rhee, David. (2009) The Elevator Problem. Mathematical Wizardry for a Gardner. 165–171
Lo, Jerry, and Rhee, David. (2006) Non-Transitivity in Tournaments. Crux Mathematicorum with Mathematical Mayhem. September, 298–302
Lo, Jerry, and Rhee, David. (2006) Trilinear Poles and Polars. Integral. 9(5), 58–68

RESEARCH

Masters Research (2010–) *Advisor: Kevin Purbhoo*
Combinatorially understanding cyclic sieving of promotion

Research Assistant (2010) *Advisor: Kevin Purbhoo*
Combinatorially determining vanishing Littlewood Richardson number

Research Assistant (2009) *Advisor: Ruxandra Moraru*
Computing holomorphic vector bundles on non-algebraic surfaces

Research (2009) *Advisor: Andy Liu*
Alternating cycles in 3-regular graphs.

Research Assistant (2008) *Advisor: Yu-Ru Liu*
Study of additive combinatorics. Presented proofs of Vinogradov's theorem, Szemerédi's theorem for 4 term arithmetic progression, etc.

Research (2005–2006) *Advisor: Andy Liu*
Elevator problem: covering complete graph with cliques

Research (2005) *Advisor: Andy Liu*
Nontransitivity of tournaments and its generalization

TEACHING**Olympiad Math Teacher (2007 – 2010)**

Volunteered to teach math for local junior high and high school students every Saturday with a group of undergraduates

IMO Trainer (2007, 2008)

Gave talks and made problems sets for the Canadian International Mathematical Olympiad team

Teaching Assistant (2006, 2008, 2010)

Taught junior high students in math camps

**OTHER
ACTIVITIES****Contest Organizer (2009 –)**

Organized math contests twice a year for the University of Waterloo Pure Math Club.

Translator (2010)

Translated the International Mathematics Competition contest problems. Provided translation between organizers.