

SUNGWON CHO  
CURRICULUM VITAE

**Address**

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**Career Objective**

- Pursuing a research and teaching career in the mathematical sciences

**Research Interests**

- Partial Differential Equations: Regularity theory and qualitative properties of solutions to parabolic and elliptic equations, Harnack inequality, Harmonic measure, Estimates on Fundamental solutions.
- Calculus of Variations: Regularity theory and partial regularity of Quasi-convex and Polyconvex functional, Caccioppoli inequality, Hausdorff dimension estimate of singular set.

**Education**

- UNIVERSITY OF MINNESOTA, 1999 - 2005  
Ph.D. in Mathematics, June 2005  
Thesis title: *Boundary behavior of solutions to second order elliptic and parabolic equations*  
Advisor: Professor Mikhail Safonov
- YONSEI UNIVERSITY, SEOUL, KOREA, 1996 - 1998  
Master of Science in Mathematics, February 1998  
Thesis title: *Inverse Problem in Parabolic Equation*  
Thesis advisor: Professor Jin Keun Seo
- YONSEI UNIVERSITY, SEOUL, KOREA, 1990 - 1996  
Bachelor of Science in Mathematics, February 1996

**Publications**

- Hölder regularity of solutions to second order elliptic equations in non-smooth domains, with M. Safonov, to appear in 'Boundary Value Problems'
- Two sided global estimates of the Green's function of parabolic equations, to appear in 'Potential Analysis'
- Singular set for Lipschitzian critical points of polyconvex functionals from nonlinear elasticity, submitted to SIAM, J. Math. Anal
- Boundary behavior of solutions to second order parabolic equations, in progress

**Talks and Seminar presentaion**

- Two sided global estimates of the Green's function of parabolic equations, Partial Differential Equations Seminar, Michigan State University, September 2005

### **Teaching Experience**

- Small Class lecturer (Michigan State University), 2005 (Fall) - present
- Teaching Assistant in Mathematics (University of Minnesota), 1999 (Fall) - 2005 (Spring)  
Taught Precalculus, Calculus, Multi-variable Calculus, and IT Calculus  
except 2003 (Spring), worked as a tutor at the Taylor Undergraduate Academic Center
- Teaching Assistant in Mathematics (Yonsei University), 1996-1998  
Taught Calculus and Analytic Geometry, Advanced Calculus, and Topology

### **Honors and Awards**

- *Thank a teacher* certificate, sponsored by the Center for Teaching and Learning Services at the University of Minnesota, February 23, 2005
- *Citation for Excellence in Teaching*, sponsored by school of mathematics at the University of Minnesota based on the cumulative teaching record, April 18, 2005

### **Personal**

- Citizenship: Republic of Korea