

# Jungho Lee

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## PERSONAL

- Date of Birth: September 24, 1983-Deagu, South Korea
- Nationality: South Korea

## CONTACT INFORMATION

Computer Science and Mathematics Division          jungho@ornl.gov  
Oak Ridge National Laboratory                              (cell) +1-917-821-6525

## EDUCATION

### **Courant Institute of Mathematical Sciences, New York University**

- Ph.D. Candidate in Mathematics, *September 2009* (GPA: 3.967/4.000)
  - Dissertation Topic: a hybrid domain decomposition method and its applications to contact problems in mechanical engineering
  - Advisor: Professor Olof B. Widlund

### **Korea Advanced Institute of Science and Technology, South Korea**

- B.S. in Mathematics, *August 2004 (Summa Cum Laude)* (GPA: 4.20/4.30)

## RESEARCH INTERESTS

Numerical Methods, Domain Decomposition Methods, Optimization, Scientific Computing

## EMPLOYMENT HISTORY

### **Oak Ridge National Laboratory, Oak Ridge, TN**

- Postdoctoral Research Associate (Computer Science and Mathematics Division)  
*October 2009 - present*

## PUBLICATIONS

- *A strategy to find an initial active set for inequality constrained quadratic programming problems.* Submitted to Optimization Methods and Software.
- *A hybrid domain decomposition method based on one-level FETI and BDDC algorithms.* Submitted to SIAM Journal on Scientific Computing (SISC).
- *Convergence analysis of a new domain decomposition method for a linearized contact problem.* Submitted to SIAM Journal on Scientific Computing (SISC).
- *A hybrid domain decomposition method and its applications to contact problems in mechanical engineering.* PhD thesis, New York University, 2009.

## COMPUTING EXPERIENCE

- Experience with parallel computing in C with MPI and openMP
- Experience with PETSc (Portable Extensible Tools for Scientific Computation)
- Extensive experience writing codes in Matlab for various Krylov subspace methods for scalar elliptic problems and linear elasticity problems

## AWARDS

Henry MacCracken Fellowship, New York University, 2004-2009  
Engberg Fellowship, New York University for an outstanding first year Ph.D. student, June 2005

## COMPUTING SKILLS

C/C++, Matlab, Maple, LaTeX, LINUX, UNIX

**TEACHING  
EXPERIENCE**

Spring 2009 Lecturer, Calculus I  
Fall 2008 Lecturer, Quantitative Reasoning  
Spring 2008 Teaching Assistant, Numerical Analysis  
Fall 2007 Teaching Assistant, Precalculus  
Spring 2007 Grader, Continuous Time Finance  
Fall 2006 Lecturer, Calculus I  
Spring 2006 Teaching Assistant, Algebra II  
Fall 2005 Teaching Assistant, Algebra I  
Spring 2005 Teaching Assistant, Business Calculus  
Fall 2004 Teaching Assistant, Business Calculus

**LANGUAGES**

Fluent English, Fluent Korean, Intermediate Japanese