#### Hongjoong Kim Department of Mathematics, Korea University, Anam-dong, Seongbuk-gu, Seoul, 02841, Korea. T: 82-2-3290-3088 F: 82-2-929-8562 E: hongjoong@korea.ac.kr

### **Professional Positions:**

Sep 2012 - present	Professor of Mathematics, Korea University
Feb 2014 - Jan 2016	Chairman, Department of Mathematics, Korea University
Sep 2007 - Aug 2012	Associate Professor of Mathematics, Korea University
Sep 2003 - Aug 2007	Assistant Professor of Mathematics, Korea University

# Education:

Ph.D., Department of Applied Mathematics and Statistics, State University of New York at Stony Brook, 2000 M.S., Department of Applied Mathematics and Statistics, State University of New York at Stony Brook, 1997 B.S., Department of Mathematics, Korea University, 1993

### **Professional History:**

Sep 2002 - Aug 2003	Assistant Professor of Mathematics, University of North Carolina at Charlotte
Jun 2000 - Aug 2002	Research Associate of Center for Applied Mathematical Sciences,
	University of Southern California
Aug 2001 - Dec 2001	Lecturer of Mathematics, University of Southern California
Aug 2000 - Dec 2000	Lecturer of Mathematics, University of Southern California
Jan 1996 - May 2000	Research Assistant of Applied Mathematics and Statistics, State University of
	New York at Stony Brook
Sep 1995 - Dec 1995	Graduate Assistant of Applied Mathematics and Statistics, State University of
	New York at Stony Brook

# **Research Interests:**

- Scientific Computation, Generalized Polynomial Chaos, Relaxation method
- · Computational Fluid Dynamics, Conservation Laws, Error Estimation, Korteweg-de Vries Equation
- · Porous Media Flows, Enhanced Oil Recovery, Scale-up
- · Financial Mathematics, Stochastic Partial Differential Equations, Option Pricing
- Internet Security, Information Assurance of the Internet, Change Point Detection

# **Recent Publications:**

- An adaptive averaging binomial method for option valuation, Operations Research Letters, vol. 41, pp. 511-515, 2013
- A multi-dimensional local average method for multi-asset models, Quantitative Finance, vol. 13, pp. 873-884, 2013
- Polynomial chaos solution to the Black Scholes equation with a random volatility, Economic computation and economic cybernetics and research, vol. 46, pp. 173-191, 2012
- Stability of symmetric solitary wave solutions of a forced Korteweg-de Vries equation and the polynomial chaos, Advances in Applied Mathematics and Mechanics, vol. 4, pp. 833-847, 2012
- Dependence of polynomial chaos on random types of forces of KdV equations, Applied Mathematical Modelling, vol. 36, pp. 3074-3087, 2012
- Numerical stability of symmetric solitary-wave-like waves of a two-layer fluid forced modified KdV equation, Mathematics and computers in simulation, vol. 82, pp. 1219-1227, 2012