BYUNG-JAY KAHNG

Dept. of Mathematics & Statistics
University of Nevada
Reno, NV 89557
Phone: (775) 784-4445
E-mail: bjkahng@unr.edu
Homepage: http://www.unr.edu/homepage/bjkahng

Home: 1680 Sky Mountain Dr.
Apt. #L-151
Reno, NV 89523

RESEARCH AREA: Functional analysis, Operator algebras

RESEARCH TOPIC: C^*-algebraic (locally compact) quantum groups, Non-commutative geometry

EDUCATION:

B.S. in Mathematics, Seoul National University (Korea), *cum laude*, 1990

Ph.D. in Mathematics, University of California at Berkeley, 1997
Thesis Advisor: Professor Marc A. Rieffel
Title: Deformation quantization of some non-compact solvable Lie groups and their representation theory

PROFESSIONAL EXPERIENCE:

Graduate Student Instructor, Department of Mathematics, U. C. Berkeley (1992–1996)

Graduate Student Researcher (Modern Analysis Division), U. C. Berkeley (1996)

Postdoctoral Research Fellow, University of California at Berkeley (1997)

Lecturer of Mathematics, University of California at Davis (1998/1999)

Term Assistant Professor, Mathematics, University of Kansas (1999–2003)

Postdoctoral Fellow, Mathematics, University of Nevada (2003–present)

TEACHING EXPERIENCE:

Graduate Student Instructor, University of California at Berkeley (1992–1996)
Seven semesters of experience leading discussion sections. Courses include: Calculus (science/engineering majors and non-majors), Pre-calculus, and Sophomore Mathematics (Differential Equations and Linear Algebra). After graduation, served as an instructor for upper division Linear Algebra.

Lecturer of Mathematics, University of California at Davis (1998/1999)
Two courses per quarter: one large size (200+) class and one regular size class. Courses include: Short Calculus (non-majors), Calculus (science/engineering majors), and Linear Algebra.

Term Assistant Professor, University of Kansas (1999–2003)
Six credit hours per semester. Courses include: Calculus (non-majors and science/engineering majors), Honors Calculus, Differential Equations, Statistics (elementary statistics and upper division calculus-based), and upper division Linear Algebra.

Postdoctoral Fellow, University of Nevada (2003–present)
Eight/nine credit hours per semester. Courses taught are: Pre-calculus, Calculus (for business and for science/engineering), Differential Equations. Developed WebCT problems for use in courses taught.

OTHER (AWARDS AND ACTIVITIES):
Scholarship from The Korea Foundation for Advanced Studies (1990)

U. S. Department of Education National Need Fellowship (1990–1992)

Travel Grant from American Mathematical Society (2000)
(Participation in *Mathematical challenges of the 21st century* at UCLA)

Talk at West Coast Operator Algebra Seminar
(University of Northern British Columbia, 1997)

Talk at Regional meeting (University of Nebraska, 1999)

Talk at Canadian Operator Symposium (Fields Institute, Canada, 2000)

Talk at AMS meeting #964 (University of Kansas, 2001)

Talk at Great Plains Operator Theory Symposium
(University of North Carolina at Charlotte, 2002)

Talk at Great Plains Operator Theory Symposium
(University of Illinois at Urbana-Champaign, 2003)

Talk at West Coast Operator Algebra Seminar
(Pacific Institute for the Mathematical Sciences at Banff, Canada, 2003)

Talk at KOTAC International Conference on Operator Theory and Applications
(Kyungpook National University at Taegu, Korea, 2005)

Also gave several seminar/colloquium talks at various departments by invitation

Reviewed 14 articles for *Math Reviews* and 8 articles for *Zentralblatt Math* (2000–)

REFERENCES:

Professor Marc Rieffel (rieffel@math.berkeley.edu), University of California at Berkeley

Professor Judith Packer (packer@math.colorado.edu), University of Colorado

Professor Albert Sheu (sheu@math.ku.edu), University of Kansas

Professor William Paschke (paschke@math.ku.edu), University of Kansas

Professor Bozenna Pasik-Duncan (bozenna@math.ku.edu), University of Kansas

Professor Bruce Blackadar (bruceb@unr.edu), University of Nevada

Professor Edward Keppelmann (keppelma@unr.edu), University of Nevada

PUBLICATIONS AND PREPRINTS:

1. *Deformation quantization of certain nonlinear Poisson structures*,
International J. Math. **9** (1998), 599–621.

2. *Non-compact quantum groups arising from Heisenberg type Lie bialgebras*,
J. Operator Theory **44** (2000), 303–334.

3. **-representations of a quantum Heisenberg group algebra*,
Houston J. Math. **28** (2002), 529–552.

4. *Haar measure on a locally compact quantum group*,
J. Ramanujan Math. Soc. **18** (2003), 385–414.

5. *Dressing orbits and a quantum Heisenberg group algebra*,
Illinois J. Math. **48** (2004), 609–634.

6. *Quantizations of some Poisson–Lie groups: The bicrossed product construction*,
J. Geometry & Physics **56** (2006), 485–511.
(available online at http://authors.elsevier.com/sd/article/S0393044005000318)

7. *Quantum double construction in the C^*-algebra setting of certain Heisenberg-type locally compact quantum groups*,
Accepted to appear in Houston J. Math.

8. *Construction of a quantum Heisenberg group*,
preprint

9. *Twisting of the Quantum double and the Weyl algebra*,
in preparation (abstract and brief summary is available upon request)

(*) Electronic versions (in PDF) of the above papers are available at
http://www.unr.edu/homepage/bjkahng/research/publist.html