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Dept. of Math. & Info. Sci., University of North Texas at Dallas, Dallas, TX 75241, U.S.A.

Dr. Byungik "Ike" Kahng

Department of Mathematics & Information Sciences

Curriculum Vitae

for AY 2016–2017 Spring

Printed on: January 13, 2017

BYUNGIK KAHNG'S CV

BYUNGIK "IKE" KAHNG

DEPARTMENT OF MATHEMATICS AND INFORMATION SCIENCES
UNIVERSITY OF NORTH TEXAS AT DALLAS
7400 UNIVERSITY HILLS BOULEVARD
DALLAS, TX 75241, U.S.A.

Area of Expertise

Pure Mathematics:	Discrete-time Non-linear Dynamical Systems
Applied Mathematics:	Non-linear Control and Automation Theory
Education:	Technology Enhanced Undergraduate Mathematics Education

Education

Year	Degree	Major	Institution
2000	Ph. D.	Mathematics	University of Illinois at Urbana-Champaign
1994	M. S.	Mathematics	Stanford University, Stanford, CA
1992	B. S.	Mathematics	Seoul National University, Seoul, Korea

Professional Experience

Year	Place of Employment	Rank / Title
2010 – present	University of North Texas at Dallas	Assistant Professor
2003 – 2010	University of Minnesota at Morris	Assistant Professor
2001 – 2003	The College of William and Mary	Visiting Assistant Professor
Spring 2001	Univ. of IL at Urbana-Champaign	Lecturer (one semester)
1994 – 2000	Univ. of IL at Urbana-Champaign	Teaching Assistant

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Date: January 13, 2017.

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Dept. of Math. & Info. Sci., University of North Texas at Dallas, Dallas, TX 75241, U.S.A.

Teaching Experience

UNT Dallas Courses Taught. (Fall 2010 – Spring 2017)

- AY 2016–2017 SP (16 Credits)
  - Math 1680 Elementary Probability and Statistics (3CR)
  - Math 1710 Calculus I (4CR)
  - Math 3680 Applied Statistics (3CR)
  - Math 3610 Real Analysis II (3CR)
  - Math 5621 Introduction to Mathematical Analysis II (3CR)

- AY 2016–2017 FA (15 Credits)
  - Math 1100 College Algebra (3CR)
  - Math 1680 Elementary Probability and Statistics (3CR)
  - Math 1680 Elementary Probability and Statistics (3CR)
  - Math 3400 Number Theory (3CR)
  - Math 4900 Problem Seminar in Mathematics (3CR)

- AY 2015–2016 SP (13 Credits)
  - Math 1680 Elementary Probability and Statistics (3CR)
  - Math 1710 Calculus I (4CR)
  - Math 4900 Special Problems (3CR)
  - Math 5090 Topics in Mathematical Contents and Pedagogy (3CR)

- AY 2015–2016 FA (12 Credits)
  - Math 1190 Business Calculus (3CR)
  - Math 1600 Trigonometry (3CR)
  - Math 2700 Linear Algebra and Vector Geometry (3CR)
  - Math 3400 Number Theory (3CR)

- AY 2014–2015 SU (7 Credits)
  - Math 1710 Calculus I (4CR)
  - Math 1720 Calculus II (3CR)

- AY 2014–2015 SP (15 Credits)
  - Math 1650 Pre-Calculus (5CR)
  - Math 1710 Calculus I (4CR)
  - Math 1720 Calculus II (3CR)
  - Math 3680 Applied Statistics (3CR)

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- AY 2014–2015 FA (14 Credits)
  - Math 1680 Elementary Probability and Statistics (3CR)
  - Math 1681 Elementary Probability and Statistics with Algebra Review (1CR)
  - Math 1710 Calculus I (4CR)
  - Math 4610 Probability (3CR)
  - Math 5680 Introduction to Probability and Statistics (3CR)

- AY 2013–2014 SU (4 Credits)
  - Math 1581 Survey of Mathematics with Algebra Review (4CR)

- AY 2013–2014 SP (13 Credits)
  - Math 1100 College Algebra (3CR)
  - Math 1710 Calculus I (4CR)
  - Math 3610 Real Analysis II (3CR)
  - Math 3680 Applied Statistics (3CR)

- AY 2013–2014 FA (9 Credits)
  - Math 1650 Pre-Calculus (5CR)
  - Math 1710 Calculus I (4CR)

- AY 2012–2013 SP (10 Credits)
  - Math 1010 Fundamentals of Algebra (3CR)
  - Math 1190 Business Calculus (3CR)
  - Math 1581 Survey of Mathematics with Algebra Review (4CR)

- AY 2012–2013 FA (15 Credits)
  - Math 1650 Pre-Calculus (5CR)
  - Math 1680 Elementary Probability and Statistics (3CR)
  - Math 1710 Calculus I (4CR)
  - Math 4520 Complex Variable (3CR)

- AY 2011–2012 SP (13 Credits)
  - Math 1010 Fundamentals of Algebra (3CR)
  - Math 1581 Survey of Mathematics with Algebra Review (4CR)
  - Math 2730 Multivariable Calculus (3CR)
  - Math 2770 Discrete Mathematics (3CR)

- AY 2011–2012 FA (15 Credits)
  - Math 1650 Pre-Calculus (5CR)
  - Math 1710 Calculus I (4CR)
  - Math 1780 Probability (3CR)
  - Math 4900 Special Problems (3CR)

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- ○ AY 2010–2011 SU (3 Credits)
  – Math 1010 Fundamentals of Algebra (3CR)

- ○ AY 2010–2011 SP (10 Credits)
  – Math 1010 Fundamentals of Algebra (3CR)
  – Math 1710 Calculus I (4CR)
  – Math 3680 Applied Statistics (3CR)

- ○ AY 2010–2011 FA (10 Credits)
  – Math 1010 Fundamentals of Algebra (3CR)
  – Math 1710 Calculus I (4CR)
  – Math 1780 Probability (3CR)

Innovative Teaching Implemented. (UNT Dallas courses only)

AY 2014–2015 FA	Math 1710	Calculus I (on-line only)
AY 2014–2015 SP	Math 1650	Pre-Calculus (traditional + hyflex)
AY 2014–2015 SP	Math 1710	Calculus I (on-line + hyflex)
AY 2014–2015 SP	Math 1720	Calculus II (on-line + hyflex)
AY 2014–2015 SU	Math 1710	Calculus I (on-line only)
AY 2014–2015 SU	Math 1720	Calculus II (on-line only)
AY 2015–2016 FA	Math 1600	Trigonometry (on-line only)
AY 2015–2016 SP	Math 1680	Elementary Probability and Statistics (hyflex)
AY 2015–2016 SP	Math 1710	Calculus I (hyflex)

The implementations are being continued in all the courses listed above.

Experience before Joining UNT Dallas. (since earning the doctoral degree)

In University of Minnesota at Morris: Math 1011 Pre-Calculus, Math 1012 College Algebra, Math 1013 Trigonometry, Math 1021 Survey of Calculus, Math 1101 Calculus I, Math 1102 Calculus II, Math 2101 Calculus III, Math 3221 Analysis, Math 4201 Complex Analysis, Math 4211, Real Analysis, Math 4221 Topology.

In College of William and Mary: Math 106 Elementary Statistics.

In University of Illinois at Urbana-Champaign: Math 1280 Differential Equations.

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RESEARCH AND SCHOLARSHIP

Refereed Publication I (Full Original Papers)**.** The publications that came out after I joined UNT Dallas are highlighted in bold.

[1] B. Kahng, *An implementation of the multiple valued iterative dynamics algorithms for a class of singularly disturbed nonlinear control dynamical systems*, submitted to Fractals in 2016.

[2] B. Kahng, *Maximal invariance of topologically almost continuous iterative dynamics*, submitted to Nonlinear Analysis in 2015.

[3] **B. Kahng**, *An optimization of maximal invariance in a class of multiple valued iterative dynamics models of nonlinear disturbed control systems*, **Fractals, 24, (2016), 1650044.**

[4] **B. Kahng, M. Gomez and E. Padilla,** *Visualization algorithms for the steady state sets of a class of singularly disturbed nonlinear control dynamical systems*, **International Journal of Mathematical Models and Methods in Applied Sciences, 10, (2016), 237–243.**

[5] **B. Kahng, M. Cuadros and J. Sullivan,** *Sliding singularities of bounded invertible planar piecewise isometric dynamics*, **International Journal of Mathematical Models and Methods in Applied Sciences, 8, (2014), 57–64.**

[6] **B. Kahng and M. Mendes,** *The characterization of maximal invariant sets of non-linear discrete control dynamical systems*, **Discrete and Continuous Dynamical Systems, S, (2013), 393–406.**

[7] **B. Kahng,** *Multiple valued iterative dynamics models of non-linear discrete-time control dynamical systems with disturbance*, **Journal of the Korean Mathematical Society, 50, (2013), 17–39.**

[8] **B. Kahng,** *Sliding, shuffling and self-shuffling singularities of bounded invertible planar piecewise isometric dynamical systems*, **in Proceeding of the 7th International Conference on Applied Mathematics, Simulation and Modeling, Cambridge MA, (2013), 118–123.**

[9] **B. Kahng,** *The approximate control problems of the maximal invariant sets of non-linear discrete-time disturbed control dynamical systems: an algorithmic approach*, **in Proceeding of the 9th International Conference on Control Automation and Systems, KINTEX, Gyeonggi-do, Korea, (2010), 1513–1518.**

[10] **B. Kahng and J. Davis,** *Maximal Dimensions of Uniform Sierpinski Fractals*, **Fractals, 18, (2010), 451–460.**

[11] B. Kahng, *Redefining chaos: Devaney-chaos for piecewise continuous dynamical systems*, International Journal of Mathematical Models and Methods in Applied Sciences, 4, (2009), 317–326.

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[12] B. Kahng, *Positive invariance of multiple valued iterative dynamical systems in disturbed control models*, in Proceeding of 17th IEEE Mediterranean Conference on Control and Automation, Thessaloniki, Greece, (2009), 663–668.

[13] B. Kahng, *Singularities of 2-dimentional invertible piecewise isometric dynamical systems*, Chaos, 19, (2009), 023115.

[14] B. Kahng, *On Devaneys definition of chaos for discontinuous dynamical systems*, in Recent Advances in Applied Mathematics and Computational Information Sciences, 15, (2009), 89–94.

[15] B. Kahng, *Maximal invariant sets of multiple valued iterative dynamics in disturbed control systems*, International Journal of Circuits, Systems and Signal Processing, 2, (2008), 113–120.

[16] B. Kahng, *The invariant set theory of multiple valued iterative dynamical systems*, in Recent Advances in System Science and Simulation in Engineering, 7, (2008), 19–24.

[17] B. Kahng, *The invariant fractals of symplectic piecewise affine elliptic dynamics*, in AMS Proceeding Symposia in Pure Mathematics, 72(1), (2004), 375–389.

[18] B. Kahng, *The unique ergodic measure of symmetric piecewise toral isometry with the rotation angle $\pi/5$ is the Hausdorff measure of its singular set*, Dynamical Systems an International Journal, 19 (2002), 245–264.

[19] B. Kahng, *Dynamics of kaleidoscopic maps*, Advances in Mathematics, 22 (2002), 178–205.

[20] B. Kahng, *Dynamics of symplectic piecewise elliptic rotation maps on tori*, Ergodic Theory and Dynamical Systems, 22, (2002), 483–505.

[21] B. Kahng, *Dynamics of symplectic piecewise elliptic rotation maps on tori*, Ph. D. Thesis, University of Illinois at Urbana-Champaign, 2000.

Refereed Publication II (Review Articles). The publications that came out after I joined UNT Dallas are highlighted in bold.

(1) **Mathematical Reviews, MR 3358074, reviewed by Byungik Kahng (2016)**, *R. De Leo, On the exponential growth of normls in semigroups of linear endomorphisms and the Hausdorff dimension of attractors of projected iterated function systems, J. Geom. Anal. 15, (2015), 1798–1827.*

(2) **Mathematical Reviews, MR 3325727, reviewed by Byungik Kahng (2016)**, *V. Sirvent, Expanding maps on the circle of geodesic laminations, Bull. Belg. Math. Soc., 22, (2015), 143–158.*

(3) **Mathematical Reviews, MR 3298004, reviewed by Byungik Kahng (2015)**, *M. Lapidus, G. Radunovic and D. Zubrinic, Fractal zeta functions and complex dimensions of relative fractal drums, Journal of Fixed Point Theory and Applications, 15, (2014), 321–378.*

(4) **Mathematical Reviews, MR 3203405, reviewed by Byungik Kahng (2014)**, *M. Lapidus, J. Rock and D. Zubrinic, Box-counting fractal strings, zeta functions, and equivalent forms of Minkowski dimension, Contemporary Mathematics, 600, (2013), 239–271.*

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(5) **Mathematical Reviews, MR 3009102, reviewed by Byungik Kahng (2013)**, *J. Bremont and Z. Buczolich, Maximizing points and coboundaries for an irrational rotation on a circle, Ergodic Theory and Dynamical Systems, 33, (2013), 22–48.*

(6) **Mathematical Reviews, MR 2901771, reviewed by Byungik Kahng (2013)**, *J. Lawrynowicz, M. Nowak-Kepczyk and O. Suzuki, Fractals and chaos related to Ising-Onsager-Zhang lattice versus the Jordan-von Neumann-Wigner procedures, Int. J. of Bifurcation and Chaos, 22, (2012), 123003.*

(7) **Mathematical Reviews, MR 2844651, reviewed by Byungik Kahng (2012)**, *R. Z. Yu, X. C Fu and L. Ye, On codings and dynamics of planar piecewise rotations, Physica D, 240, (2011), 1785–1790.*

(8) **Mathematical Reviews, MR 2777633, reviewed by Byungik Kahng (2012)**, *J. Lawrynowicz, S. Marchiafava, N.K. Malgorzata, Mathematical outlook of fractals and chaos related to simple orthorhombic Ising-Onsager-Zhang lattices, Trends in Differential Geometry, Complex Analysis and Mathematical Physics, (2009), 156–166.*

(9) **Mathematical Reviews, MR 2718895, reviewed by Byungik Kahng (2011)**, *P. Ashwin and A. Goetz, Cone exchange transformations and bounded orbits, Ergodic Theory and Dynamical Systems, 30, (2009), 1311–1330.*

(10) **Mathematical Reviews, MR 2606802, reviewed by Byungik Kahng (2010)**, *R.Z. Yu, X.C. Fu, K.M. Wang and Z.H. Chen, Dynamical behaviors and codings of invertible piecewise isometric systems, Nonlinear Analysis, 72, (2010), 3575–3582.*

(11) **Mathematical Reviews, MR 2567901, reviewed by Byungik Kahng (2010)**, *V. Garant-Pelletier and D. Rochon, On generalized Fatou-Julia theorem in multicomplex spaces, Fractals, 17(3), (2009), 241–255.*

(12) Mathematical Reviews, MR 2496112, reviewed by Byungik Kahng (2009), *A. Portela, Regular interval Cantor sets of S1 and minimality, Bull. Braz. Math. Soc., 40, (2009), 53–75.*

(13) Mathematical Reviews, MR 2477027, reviewed by Byungik Kahng (2009), *X.C. Fu and J. Duan, On global attracters for a class of non-hyperbolic piecewise affine maps, Physica D, 237, (2008), 3369–3376.*

(14) Mathematical Reviews, MR 2380044, reviewed by Byungik Kahng (2008), *M. Trovati and P. Ashwin, Tangency properties of a pentagonal tiling generated by a piecewise isometry, Chaos, 17, (2007), 043129.*

(15) Mathematical Reviews, MR 2355572, reviewed by Byungik Kahng (2007), *X.C. Fu, F.Y. Chen and X.H. Zhao, Dynamic properties of 2-torus parabolic maps, Nonlinear Dynamics, 50, (2007), 539–549.*

(16) Mathematical Reviews, MR 2221800, reviewed by Byungik Kahng (2007), *Franco Vivaldi and John H. Lowenstein, Arithmetic properties of a family of irrational piecewise rotations, Nonlinearity, 19, (2006), 1069–1097.*

(17) Mathematical Reviews, MR 2308210, reviewed by Byungik Kahng (2007), *Rhong-Zhong Yu, Xin-Chu Fu and Shu-Liang Shui, Density of invariant disk-packing for planar piecewise isometries, Dynamical Systems, 22, (2007), 65–72.*

(18) Mathematical Reviews, MR 2308209, reviewed by Byungik Kahng (2007), *J. H. Lowenstein, Aperiodic orbits of piecewise rational rotations of convex polygons with recursive tiling, Dynamical Systems, 22, (2007), 25–63.*

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(19) Mathematical Reviews, MR 2182476, reviewed by Byungik Kahng (2006), *J. H. Lowenstein, G. Poggiaspalla and F. Vivaldi, Sticky orbits in a kicked oscillator model, Dynamical Systems, 20, (2005), 413–451.*

(20) Mathematical Reviews, MR 2173536, reviewed by Byungik Kahng (2006), *P. Ashwin and A. Goetz, Invariant curves and explosion of periodic islands in systems of piecewise rotations, SIAM Journal of Applied Dynamical Systems, 4, (2005), 437–458.*

(21) Mathematical Reviews, MR 2151109, reviewed by Byungik Kahng (2006), *A. Goetz, Return maps in cyclotomic piecewise similarities, Dynamical Systems, 20, (2005), 255–265.*

(22) Mathematical Reviews, MR 2008099, reviewed by Byungik Kahng (2005), *Jui-Kun Jiang, A dimension formula of a class of fractal surfaces, Analysis, Combinatorics and Computing, (2002), 259–264.*

Grant Proposals I (Funded Research Grants). Only the proposals I wrote are listed here. Funded proposals are highlighted in bold.

[A] **Noureen Khan** (PI) and **Byungik Kahng** (Co-PI), **Visual Thinking and Printable Mathematical Proofs (2016)**, National Research Experience for Undergraduates Program (NREUP), administered by Mathematical Association of America (MAA), funded by National Science Foundation **(NSF, DMS-1359016)** and National Security Agency **(NSA, H98230-15-1-0020)**. Funded **$27,500**.

[B] **Noureen Khan** (PI) and **Byungik Kahng** (Co-PI), **Bounded Invariants and Piecewise Isometries (2015)**, National Research Experience for Undergraduates Program (NREUP), administered by Mathematical Association of America (MAA), funded by National Science Foundation **(NSF, DMS-1359016)** and National Security Agency **(NSA, H98230-15-1-0020)**. Funded **$27,500**.

[C] **Noureen Khan** (PI) and **Byungik Kahng** (Co-PI), **Low Dimensional Topology and Topological Dynamics (2014)**, National Research Experience for Undergraduates Program (NREUP), administered by Mathematical Association of America (MAA), funded by National Science Foundation **(NSF, DMS-1359016)** and National Security Agency **(NSA, H98230-15-1-0020)**. Funded **$27,500**.

[D] **Noureen Khan** (PI) and **Byungik Kahng** (Co-PI), **Knotted Strings and Piecewise Isometric Dynamics (2013)**, National Research Experience for Undergraduates Program (NREUP), administered by Mathematical Association of America (MAA), funded by National Science Foundation **(NSF, DMS-1359016)** and National Security Agency **(NSA, H98230-15-1-0020)**. Funded **$27,500**.

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[E] **Noureen Khan** (PI) and **Byungik Kahng** (Co-PI), **Links of Knot Theory in DNA Loops (2012)**, National Research Experience for Undergraduates Program (NREUP), administered by Mathematical Association of America (MAA), funded by National Science Foundation **(NSF, DMS-1359016)** and National Security Agency **(NSA, H98230-15-1-0020)**. Funded **$27,500**.

Grant Proposals II (Other Grants, since joining UNT Dallas). Only the proposals written by me are listed here. Funded proposals are highlighted in bold.

(A) **Byungik Kahng** (PI) and **Noureen Khan** (Co-PI), **Dallas Area Mathematics Partnership (2016)**, Strengthening Underrepresented Minority Mathematics Achievement (SUMMA), administered by MAA, funded by Tensor Foundation. **Funded $6,000**.

(B) Byungik Kahng (PI), Mehmet Celik, Noureen Khan and Ali Shaqlaih, NSF-1458809 DUE S-STEM (2014), A New Opportunity in a New University: A Mathematics Scholarship Program for Underprivileged Students of Southern Dallas Region. Applied for $628,835. Not funded.

(C) Byungik Kahng (PI), Mehmet Celik, Noureen Khan and Ali Shaqlaih, NSF-1356003 DUE S-STEM (2013), A New Opportunity in a New University: A Mathematics Scholarship Program for Underprivileged Students of Southern Dallas Region. Applied for $627,965. Not funded.

(D) Byungik Kahng (PI), NSF-10544 DUE TUES (2012), Step by Step, Line by Line: An Educational Software Development Using a Computer Algebra System. Applied for $187,393. Not funded.

(E) Byungik Kahng (PI), NSF-1108737, PD 10-1266, DMS–Applied Math (2010), Maximal Invariance of Nonlinear Iterative Dynamical Systems with Singular Disturbance. Applied for $124,644. Not funded.

Published Abstracts (since joining UNT Dallas). Only national and international level conference presentations with published abstracts are listed here.

- B. Kahng, A trichotomy of the singularities of 2-dimensional bounded invertible piecewise isometric dynamics, Special Session 83: Dynamical Systems and Their Applications, the 11th AIMS (American Institute of Mathematical Sciences) Conference on Dynamical Systems, Differential Equations and Applications, Orlando, FL, USA, July 2016.

- B. Kahng, Chains of minimal image sets can attain arbitrary length, Contributed Session 4: Control and Optimization, the 11th AIMS Conference on Dynamical Systems, Differential Equations and Applications, Orlando, FL, USA, July 2016.

- B. Kahng, Singularities of 2-dimensional invertible piecewise isometric dynamics, Themed Paper Session 16: Undergraduate Research in Mathematics: How, When, Why, Part II, the 99th MAA Math Fest, Portland, OR, August 2014.

- B. Kahng, Trichotomy of singularities of 2-dimensional bounded invertible piecewise rational rotations, Contributed Paper Session 33, SIAM (Society of Industrial and Applied Mathematics) Conference on Applied Dynamical Systems, Snowbird, UT, USA, May 2013.

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- B. Kahng, Devaney chaos and singularities of invertible piecewise isometric dynamics, Special Session 23: Topological and Combinatorial Dynamics, the 9th AIMS Conference on Dynamical Systems, Differential Equations and Applications, Orlando, FL, USA, July 2012.

- B. Kahng, Non-linear discrete-time singularly-disturbed control dynamical systems and their steady state sets, Special Session 67: Applied Analysis and Dynamics in Engineering, the 9th AIMS Conference on Dynamical Systems, Differential Equations and Applications, Orlando, FL, USA, July 2012.

- B. Kahng, Singularities of invertible planar piecewise rotations, Mini Symposium 47: Piecewise Isometries: Applications and Theory, SIAM (Society of Industrial and Applied Mathematics) Conference on Applied Dynamical Systems, Snowbird, UT, USA, May 2011.

- B. Kahng, The approximate control problems of the maximal invariant sets of nonlinear discrete-time disturbed control dynamical systems: an algorithmic approach, International Conference on Control, Automation and Systems (ICCAS) 2010, KINTEX, Gyeonggi-do, Korea, October 2010.

Confidential Reports (Service). These reports are confidential and not published. They belong to service, not to research. Nonetheless, they are scholarly writings, and thus listed here. My contributions before joining UNT Dallas are de-emphasized in light gray.

○ Refereed for *Chaos*, published by *American Institute of Physics*, (2016)

○ Refereed for *Chaos*, published by *American Institute of Physics*, (2015)

○ Refereed for *Dynamical Systems*, published by *Taylor and Francis*, (2013)

○ Refereed for *Dynamical Systems*, published by *Taylor and Francis*, (2013)

○ Refereed for *Acta Mathematica Scientia*, published by *Elsevier*, (2012)

○ Refereed for *Acta Mathematica Scientia*, published by *Elsevier*, (2012)

○ Refereed for *Chaos*, published by *American Institute of Physics*, (2011)

○ Refereed for *International Journal on Bifurcation and Chaos*, published by *World Scientific*, (2011)

○ Refereed for *IEEE Transaction on Automatic Control*, published by *IEEE*, (2010)

○ Refereed for *IEEE Conference on Decision and Control*, hosted by *IEEE*, (2010)

○ Refereed for *International Journal of Computer Mathematics*, published by *Taylor and Francis*, (2010)

○ Refereed for *Fractals*, published by *World Scientific*, (2009)

○ Refereed for *Nonlinear Analysis*, published by *Elsevier*, (2009)

○ Refereed for *Nonlinear Analysis*, published by *Elsevier*, (2008)

○ Refereed for *Dynamical Systems*, published by *Taylor and Francis*, (2008)

○ Refereed for *Fractals*, published by *World Scientific*, (2007)

○ Refereed for *Dynamical Systems*, published by *Taylor and Francis*, (2006)

○ Refereed for *Fractals*, published by *World Scientific*, (2005)

○ Refereed for *Fractals*, published by *World Scientific*, (2005)

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Pedagogical Writings (Teaching). These published abstracts are on pedagogy. They are on teaching, not on research. Still, they are scholarly writings, and thus listed here.

○   B. Kahng, Emphasizing mathematical writing in on-line courses, Themed Paper Session 12: Improving Undergraduate Math Writing, the 100th MAA Math Fest, Washington DC, August 2015.

○   B. Kahng, Use of Mathematica in College Algebra, Plenary Lecture for MAA Workshop on Instructional Technology, 2012 MAA Texas Section Meeting, Dallas, TX, April 2012.

Summary of Service

Service to the University. Three permanent and three temporary committees.
- Served in University Council (Spring 2012 – Fall 2014)
- Serving in Core Curriculum Committee (Fall 2013 – Present)
- Chairing Instructional Technology and Library Committee (Fall 2015 – Present).
○ Served in Information Technology Lecturer Search Committee (Summer, 2012).
○ Served in Tenure Track Mathematics Faculty Search Committee (Spring, 2016).
○ Served in Math and IT Visiting Lecturer Search Committee (Summer, 2016).

Service to the Department. One permanent and three temporary representations.
- Served as the Mathematics Program Coordinator (Fall 2011 – Spring 2014).
○ Represented UNT Dallas in the 93rd Mathematical Association of America (MAA) Texas Sectional Meeting, Texas Tech University, Lubbok, TX, April 11–13, 2014.
○ Represented UNT Dallas in *Dallas Forth Worth Regional Mathematics Pathways Convening*, Tarrant Community College SE, Arlington, TX, October 30, 2015.
○ Represented UNT Dallas in *The 11th Annual Developmental Education Regional Forum*, Tarrant Community College SE, Arlington, TX, April 1, 2016.

Service to the Local Community. Three completed. One will begin soon.
- Organized UNT Dallas Math Day 2011 for local middle school students (Spring 2011).
  – The project was carried out under the supervision of Vinod Arya.
- Organized UNT Dallas Math Day 2012 for TexPrep students (Summer 2012).
  – The project was carried out with Noureen Khan.
- Lead a mathematics session for Girls Inc 2016 (Summer 2016).
  – Carried out with Noureen Khan, under the supervision of Ratna Narajanan.
○ Won MAA Tensor SUMMA Grant for *Dallas Area Mathematics Partnership*.
  – The main phase of the project will begin in the fall of 2016.

Service to the Research Community. Refereed for peer reviewed journals 19 times, and 11 times since joining UNT Dallas (*Confidential Reports* in the previous page).