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Curriculum Vitae

Dongsu KIM

Professor of Mathematical Sciences

KAIST (Korea Advanced Institute of Science and Technology)
291 Daehak-ro, Yuseong-gu, Daejeon 34141, Republic of Korea
Phone : 82-42-350-2729
dongsu.kim@kaist.edu

Firstname : Dongsu

Surname : KIM

Year of Birth : 1960

Research Area : Combinatorics

Ph.D. Advisor : D. Stanton, School of Math, University of Minnesota, Minneapolis

Education

1977.03—1981.02 : Seoul National University, Dept of Mathematics, B.S.

1981.03—1983.02 : Seoul National University, Dept of Mathematics, M.S.

1984.09—1989.06 : Mathematics, Univ. of Minnesota, Minneapolis, Ph.D.

Experiences

1989.09—1991.06 : Instructor in Applied Mathematics, Dept of Mathematics, MIT, USA

1991.09—1993.01 : Assistant Prof. (Tenure-track), Dept of Mathematics, University of Texas,
San Antonio, USA

1993.03—2006.12 : Assistant, Associate, Full Professor, Dept of Mathematics, KAIST, Korea

2006.09—2006.12 : Head, Department of Mathematics, KAIST

2007.01 : Department of Mathematics changed into Department of Mathematical Sciences

2007.01—present : Full Professor, Department of Mathematical Sciences, KAIST

2007.01—2011.07.31 : Head, Department of Mathematical Sciences, KAIST

2007.09.01.—2011.08.15 : Director of KAIST BK21 Program, Dept of Math. Sciences

2011.08.16.—2012.09.10 : Dean of Admissions, KAIST

2012.07.01.—2012.09.10 : Dean, College of Natural Science, KAIST

2012.09.11.—2015.09.10 : President, National Institute for Mathematical Sciences

Special experiences

- ICM 2014 (International Congress of Mathematicians): I was vice-chair of Executive Organizing Committee, in charge of NANUM 2014 travel grant.
- National Institute for Mathematical Sciences: I was president of NIMS from September 11, 2012, to September 10, 2015, on leave from KAIST.

Academic activities

- 2009 NIMS Hot Topics Workshop on Algebraic Combinatorics, Dec 14-15, 2009, KAIST, co-organizer with Bruce Sagan, Ae Ja Yee, Soojin Cho, <http://www.nims.re.kr/workshop/AC2009/>
- Special Session on Algebraic Combinatorics of the KMS-AMS Joint Meeting, Dec 16-20, 2009, Ewha Womans University, Seoul, co-organizer with Bruce Sagan, Ae Ja Yee, Soojin Cho, <http://www.kms.or.kr/KmsAms/>
- Member of Program Committee of FPSAC2012, The 24th International Conference on Formal Power Series and Algebraic Combinatorics, July 30–August 3, 2012 / Nagoya University, Nagoya, JAPAN, <http://www.math.nagoya-u.ac.jp/fpsac12/>
- Chair of Organizing Committee of FPSAC2015, The 27th International Conference on Formal Power Series and Algebraic Combinatorics, July 6–10, 2015 / KAIST, Korea, <http://fpsac.combinatorics.kr/>

Research Papers

1. A sextuple equidistribution arising in Pattern Avoidance, with Z. Lin, accepted to Journal of Combinatorial Theory, Series A, <https://arxiv.org/abs/1612.02964>
2. Colored Permutations with Monochromatic Cycles, with J. Kim and S. Seo, J. Korean Math. Soc. 54 (2017), No. 4, pp. 1149-1161
3. A combinatorial approach to the power of 2 in the number of involutions, with Jang Soo Kim, Journal of Combinatorial Theory, Series A, Volume 117, Issue 8, November 2010, 1082-1094
4. The initial involution patterns of permutations, with Jang Soo Kim, Electron. J. Combin. (2007).
5. The combinatorics of the Al-Salam-Chihara q -Charlier polynomials, with D. Stanton and J. Zeng, Sem. Lothar. Combin. 54 (2006), Art. B54i, 15 pp.
6. Colored Prüfer codes for k -edge colored trees, with M. Cho, S. Seo and H. Shin, Electron. J. Combin. 11 (2004), no. 1, Note 10, 7 pp. (electronic).
7. Transitive cycle factorizations and prime parking functions, with S. Seo, J. Combin. Theory Ser. A 104 (2003), no. 1, 125-135.
8. Combinatorics of generalized Tchebycheff polynomials, with J. Zeng, European J. Combin. 24 (2003), no. 5, 499-509.
9. A new decomposition of derangements, with J. Zeng, J. Combin. Theory Ser. A 96 (2001), no. 1, 192-198.
10. A combinatorial formula for the linearization coefficients of general Sheffer polynomials, with J. Zeng, European J. Combin. 22 (2001), no. 3, 313-332.
11. On a continued fraction formula of Wall, with J. Zeng, Ramanujan J. 4 (2000), no. 4, 421-427.
12. Three statistics on lattice paths, with D. Stanton, Algebraic methods and q -special functions (Montreal, QC, 1996), 201-214, CRM Proc. Lecture Notes, 22, Amer. Math. Soc., Providence, RI, 1999.

13. Simultaneous maj statistics, with D. Stanton, The Andrews Festschrift (Maratea, 1998). Sem. Lothar. Combin. 42 (1999), Art. B42g, 12 pp. (electronic).
14. A note on partitions into distinct parts and odd parts, with A. Yee, Ramanujan J. 3 (1999), no. 2, 227-231.
15. Lattice paths and positive trigonometric sums, with M. E. H. Ismail and D. Stanton, Constr. Approx. 15 (1999), no. 1, 69-81.
16. On combinatorics of Al-Salam Carlitz polynomials. European J. Combin. 18 (1997), no. 3, 295-302.
17. Bi-Hermite polynomials and matchings in complete graphs. Commun. Korean Math. Soc. 11 (1996), no. 1, 43-55.
18. On combinatorics of Konhauser polynomials. J. Korean Math. Soc. 33 (1996), no. 2, 423-438.
19. A combinatorial approach to biorthogonal polynomials. SIAM J. Discrete Math. 5 (1992), no. 3, 413-421.
20. A characterization of generalized staircases, with M. Haiman, Discrete Math. 99 (1992), no. 1-3, 115-122.
21. A bijective proof of Kadell's conjecture on plane partitions. Graphs Combin. 6 (1990), no. 2, 173-178.
22. Cranks and $\$$ -cores, with F. Garvan and D. Stanton, Invent. Math. 101 (1990), no. 1, 1-17.
23. The number of convex polyominoes with given perimeter. Discrete Math. 70 (1988), no. 1, 47-51.