Curriculum Vitae
Yoonjin Lee

Department of Mathematics
Ewha Womans University
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Education

Ph.D. in Mathematics, Brown University, USA, 1999.
Sc.M. in Mathematics, Brown University, USA, 1996.
Sc.M. in Mathematics, Ewha Womans University, S. Korea, 1994.
B.S. in Mathematics Education, Ewha Womans University, S. Korea, 1992.

Honors and Awards

Basic Science Research Program through the National Research Foundation
of Korea (NRF) funded by the Ministry of Education,
Science and Technology 2019-2025.

Award for the S-OIL Excellent Research Paper,
awarded by KAST (*The Korean Academy of Science and Technology), 2018.*

Leader of BK21 PLUS research team
– "Mathematical Science Team for Global Woman Leaders"
awarded by *the National Research Foundation of Korea* (2013-2020).

NRF Research Grant, March 1, 2017 - Feb. 28, 2022,
awarded by *the National Research Foundation of Korea.*
(Jung-Gyun Haik-Shim (Mid-career core grant), five year grant)

NRF Research Grant, May 1, 2015 - April 30, 2017,
awarded by *the National Research Foundation of Korea.*
(Jung-Gyun Haik-Shim, three year grant)

Priority Research Centers Program through the National Research Foundation
of Korea (NRF) funded by the Ministry of Education,
Science and Technology (2009-0093827), 9/1/2009-8/31/2018 (nine year grant).

LG Research Grant Award for visiting abroad faculty
awarded by *L.G. YONAM Foundation*, June 18, 2012.

Grant for the Korea-Japan Basic Scientific Cooperation Program for 2013 (July 2, 2012)
– Organizer of the Korea-Japan Number Theory Conference, Jan. 21-24, 2013

NRF Research Grant, May 1, 2011 - April 30, 2014,
awarded by *the National Research Foundation of Korea.*
(Jung-Gyun Haik-Shim, three year grant)

Best Teacher Award, September 17, 2009,
awarded by Ewha Womans University.

KOSEFF Research Grant awarded by *Korea Research Foundation*,
2009 - 2011 (three year grant)

Research Grant awarded by *KOSEF (Korea Science and Engineering Foundation)*
(Haik-Shim-Gee-Cho) 2008 - 2010 (three year grant)
Ewha Womans University Research Grant Award, Sep. 1, 2007 - Sep. 30, 2008,
NSERC Discovery Grant Award, 2006 - 2010 (five year grant),
(awarded by Natural Sciences and Engineering Research Council of Canada)
(Project title: *Algebraic Function Fields and Cryptography*).
President's Research Grant Award (awarded by SFU), Oct. 2005 - Oct. 2007,
University Start-up Fund (awarded by SFU), August 2005 - August 2006.
NSF-AWM Standard Travel Grant Award, March 2004.
McCoy Fellowship Award, Smith College, 2003 - 2004.
CFCD Fund for equipment, Smith College, 2003 - 2004.
NSF-AWM Mentoring Travel Grant Award, June 2002 - May 2003.
Number Theory Foundation Travel Grant Award, December 2000.
NSF-AWM Travel Grant Award, March 2000.
Research Fellowship, Brown University, Spring 1998.
Teaching Fellowships, Brown University, 1996-1998 and Fall 1999.
Teaching Assistantships, Brown University, 1995-1996.
Teaching Assistantships, Ewha Womans University, 1992-1993.
Honors Scholarships, Ewha Womans University, 1988-1991.
L.G. YONAM Honors Scholarships, LG company, 1989-1991.

Employment

Professor,
- Dept. of Mathematics, Ewha Womans University, Sep. 1, 2007 - current.
- Associate Director of *EIMS*, 2021 (March) - 2022 (Feb.)
  (Ewha Institute of Mathematical Sciences)
- Director of *EIMS*, 2022 (March) - 2025 (Feb.)
  (Ewha Institute of Mathematical Sciences)
- Activity for *Bulletin of the Korean Mathematical Society* (BKMS).
  - Chief-In-Editor (2017-2018) of BKMS,
  - Associate Editor (2016-current) of BKMS,
  - BKMS editorial committee member (2019-current),
- Adjunct Professor, Scranton Honors Program, Scranton College,
  March 1, 2009 – current.
- Vice President for Admissions, Ewha Womans University, 2017(June) - 2021(Feb.)
- Leader of *BK21 PLUS project* team awarded by *the NRF of Korea*, 2013 - 2020,
  (*"Mathematical Science Team for Global Women Leaders"*).
- Associate Director of *EIMS*, Sep. 1, 2012 - Aug. 31, 2015.
  (Ewha Institute of Mathematical Sciences)
- Chair of Information Protection Associated Major Program, 2/1/2010 – 7/31/2014.
- Head of Division of Mathematical and Physical Sciences, 8/1/2010 – 1/31/2012.
- Chair of the Math Department, Feb. 1, 2010 – Jan. 31, 2012.

Visiting Professor,
KIAS (Korea Institute for Advanced Study), Sep. 1, 2021 - Aug. 31, 2022.

Visiting Professor,
>   Dept. of Mathematics, Brown University, Aug. 1, 2013 - July 31, 2014.

Assistant Professor,
>   Dept. of Mathematics, Simon Fraser University, Aug. 1, 2005 - Aug. 31, 2007.

Assistant Professor,
>   Dept. of Mathematics, Smith College, July 1, 2002 - July 31, 2005.

Visiting Assistant Professor,
>   Dept. of Mathematical Sciences, University of Delaware,
>   Sep. 1, 2000 - June 30, 2002.

Visiting Assistant Professor,
>   Dept. of Mathematics, Arizona State University,
>   Aug. 15, 1999 - Aug. 31, 2000.

Instructor,
>   Dept. of Mathematics, Brown University, 1997-1999.

Teaching Assistant and Research Assistant,
>   Dept. of Mathematics, Brown University, 1995-1996.

Teaching Assistant,
>   Dept. of Mathematics, Ewha Womans University, 1992-1994.

Teaching Experience

Ewha Womans University
>   2021:
>   Linear Algebra I, Spring (lectured in English).
>   2020:
>   Abstract Algebra I, II (lectured in English).
>   Graduate Algebraic Number Theory II (lectured in English).
>   2019:
>   Linear Algebra I, Spring (lectured in English).
>   Graduate Algebraic Number Theory I, Fall (lectured in English).
>   2018:
>   Abstract Algebra I (lectured in English).
>   Graduate Applied Algebra (lectured in English).
>   2017:
>   Number Theory, Spring & Fall (lectured in English).
>   Graduate Algebra I (lectured in English).
>   2016:
>   Abstract Algebra I, II (lectured in English).
>   Graduate Algebraic Number Theory I, II (lectured in English).
>   Calculus II (lectured in English).
>   2015:
>   Abstract Algebra I, II (lectured in English).
>   Graduate Algebra I (lectured in English).
>   Calculus II (lectured in English).
>   2014:

Fall 2014: Calculus II (lectured in English);
Fall 2014: Applied Algebra (Graduate course, lectured in English).
2013:
Abstract Algebra I (lectured in English);
Graduate Algebra I (Graduate course, lectured in English).
2012:
Number Theory, Calculus II (lectured in English);
Algebraic Number Theory I, II (Graduate course, lectured in English).
2011:
Abstract Algebra I, II (lectured in English);
Graduate Algebra I, II (Graduate course, lectured in English).
2010:
Number Theory (Spring), Calculus II (lectured in English);
Selected Topics in Number Theory I, II (Graduate course, lectured in English).
2009:
Number Theory (Spring), Calculus II (lectured in English);
Algebraic Number Theory I, II (Graduate course, lectured in English).
2008:
Linear Algebra I, Spring (lectured in English);
Number systems and Cryptography, Fall (lectured in English);
Graduate Algebra I, II (Graduate course, lectured in English).
2007:
Abstract Algebra II (lectured in English);
Applied Algebra, Fall (Graduate course, lectured in English),

Simon Fraser University
Introduction to Applied Algebraic Systems (MATH 332), Fall of 2005 and 2006.
Discrete Mathematics II (MACM 201), Spring 2005 and Fall 2006.
Calculus I for Biological Sciences (MATH 154), Spring 2006.

Smith College
Topics in Number Theory (MATH238), Springs of 2003, 2004, and 2005.
Linear Algebra (MATH211), Fall 2002, Spring 2004.
Discrete Mathematics (MATH153), Fall 2002, 2003 and 2004.
Calculus II (MATH112), Spring 2005.

University of Delaware
Discrete Mathematics (MATH210), Fall 2000, 2001, Spring 2002.
Analytic Geometry and Calculus III (MATH243), 2001, Spring 2002.
Analytic Geometry and Calculus II (MATH242), Fall 2000.

Arizona State University
Calculus with Analytic Geometry I (MAT270), Spring 2000.
Calculus with Analytic Geometry I (MAT270), Fall 1999.

Brown University
Calculus II, Spring & Fall 1999, Spring & Fall 1996.

Advanced Placement Calculus, Fall 1998.
Intermediate Calculus, Spring 1997.
Calculus I, Fall 1995.

Research Trips

Visiting Professor of Math. Dept. at Brown University, US,
  July 27, 2013 - July 27, 2014.

Nanyang Technological University, Singapore,
  May 22 - May 27, 2011, Jan. 10 - Jan. 16, 2011, August 1 - August 7, 2010.
  (Collaboration with C. Xing)

Associate member of KIAS (*Korean Institute for Advanced Study*),
  Sep. 1, 2007 - current.

University of Louisville, US, March 25, 2010 - March 27, 2010.
  (Collaboration with J. Kim)

University of Calgary, Canada, July 20, 2009 - July 25, 2009.
  (Collaboration with R. Scheidler, M. Jacobson, H. Williams)

Visiting Scholar at KIAS (*Korean Institute for Advanced Study*),
  Dec. 15, 2004 - Dec. 30, 2005.
  May 20, 2004 - July 31, 2005, Dec. 20, 2004 - Jan. 20, 2005.
  June 23, 2003 - Aug. 25, 2003, May 20, 2004 - Aug. 20, 2004.

University of Calgary, June 15 - July 15, 2002.
  (Collaboration with H. Williams, R. Scheidler, and M. Jacobson)

Dissertation

Title: Cohen-Lenstra Heuristics and the Spiegelungssatz
Advisor: Prof. Michael I. Rosen
Area: Algebraic Number Theory

Research Interests

- Algebraic Number Theory
    Arithmetic of algebraic function fields
    Galois representation associated to Drinfeld modules
    Class group structure of a cyclotomic function field.
    Structure of ideal (or divisor) class groups of global fields.
    Classical geometry of number method in function fields
    Modularity of a various types of continued fractions
    Torsion group structure of elliptic curves

- Algebraic Coding Theory and Discrete Mathematics
    Self-dual (or Formally self-dual) codes and cyclic (or Quasi-cyclic) codes
    Algebraic Geometric codes and Number field codes
    Cryptographic functions: bent functions and plateaued functions
    Lattice codes and theta series

Cheeger constants of distance regular graphs

Research Publications

[1] Cohen-Lenstra Heuristics and the Spiegelungssatz: Number Fields,
Journal of Number Theory **92**, No. 1, 37-66 (2002).

[2] Computation of the Fundamental Units and the Regulator of a Cyclic Cubic
Function Field, (with Lee, R. Scheidler and C. Yarrish)
Experimental Mathematics, Vol. **12**, No. 2, 211-225 (2003).

[3] Euclidean and Hermitian Self-Dual MDS Codes Over Large Finite Fields
(with J. Kim) *Journal of Combinatorial Theory Series A* , Vol. **105**, No. 1,
79-95 (2004).

[4] Cohen-Lenstra heuristics and the Spiegelungssatz: Function Fields,
Journal of Number Theory **106**, No. 2, 187-199 (2004).

[5] MDS Self-dual Codes (with J. Kim),
Proceedings of the 2004 IEEE International Symposium on Information Theory,
Chicago, USA, June 27-July 2, pp. 526 (2004).

[6] The Unit Rank Classification of a Cubic Function Field by its Discriminant,
Manuscripta Mathematica, **Vol.** 116, No. 2, 173 - 181 (2005).

[7] Class groups of imaginary function fields: The inert case,
(with A. Pacelli) *Proc. Amer. Math. Soc.*, **Vol.** 133, 2883-2889 (2005).

[8] The structure of the class groups of global function fields with any unit rank,
J. Ramanujan Math. Soc. **20**, No. 2, 1-21 (2005).

[9] Higher rank subgroups in the class groups of imaginary function fields,
(with A. Pacelli), *Journal of Pure and Applied Algebra*, **Vol.** 207, 51-62 (2006).

[10] Class number divisibility of relative quadratic function fields,
Acta Arithmetica, 121, No. 2, 161-173 (2006).

[11] The Scholz Theorem in function fields,
Journal of Number Theory **122**, No. 2, 408-414 (2007).

[12] Construction of MDS Self-dual codes over Galois rings,
(with J. Kim), *Designs, Codes and Cryptography*, Vol. 45, No. 2, 247-258 (2007).

[13] Eta pairing computation on general divisors over hyperelliptic curves,
$y^2 = x^7 - x \pm 1$ (with E. Lee, H. Lee), Lecture Notes in Comput. Sci. 4575,
Springer, 349-366 (2007).

[14] Construction of hyperelliptic function fields of high three rank,
(with M. Bauer, M. Jacobson, R. Scheidler),
Mathematics of Computation, Vol. 77, Number 261, 503-530 (2008).

[15] Tate pairing computation on the divisors of hyperelliptic curves of genus 2,

(with E. Lee), *J. Korean Math. Soc.* Vol. 45, No. 4, 1057-1073 (2008).

[16] Eta pairing computation on general divisors over hyperelliptic curves
$y^2 = x^p - x + d$ (with E. Lee, H. Lee),
Journal of Symbolic Computation, Vol 43, issues 6-7, pp. 452-474, 2008.

[17] Construction of self-dual codes over finite rings Z_{p^m} (with H. Lee),
Journal of Combinatorial Theory, Series A 115, 407–422 (2008).

[18] Reflection Theorem for divisor class groups of quadratic function fields,
Journal of Number Theory 128, 2127-2137 (2008).

[19] New MDS and Near-MDS Self-Dual Codes (with T.A. Gulliver, J.-L. Kim),
IEEE Transactions on Information Theory, Vol. 54, No. 9, 4354-4360 (2008).

[20] Class groups of global function fields with certain splitting behaviors of
the infinite prime, *Proc. Amer. Math. Soc.*, Vol 137, No. 2, 415-424 (2009).

[21] Construction of cubic self-dual codes (with S. Han, J. Kim, H. Lee),
Proceedings of the 2009 IEEE International Symposium on Information Theory,
2396-2399 (2009).

[22] Self-dual codes using building-up constructions (with J. Kim),
Proceedings of the 2009 IEEE International Symposium on Information Theory,
2400-2402 (2009).

[23] The ℓ-Rank Structure of a Global Function Field,
(with L. Berger, J.-L. Hoelscher, J. Paulhus, R. Scheidler),
Fields Institute Communications 60, Amer. Math. Soc., 145-166 (2011).

[24] Families of elliptic curves over cubic number fields with prescribed torsion subgroups
(with D. Jeon and C. Kim), *Mathematics of Computation* 80, No. 273, 579-591 (2011).

[25] Binary formally self-dual odd codes (with S. Han, H. Lee and Y. Lee),
Designs, Codes and Cryptography, Vol. 61, No. 2, 141-150 (2011).

[26] Families of elliptic curves over quartic number fields with prescribed torsion
subgroups (with D. Jeon, C. Kim),
Mathematics of Computation, Vol. 80, No. 276, 2395-2410 (2011).

[27] Construction of self-dual codes with an automorphism of order p
(with H.J. Kim, H. Lee, J. Lee),
Advances in Mathematics of Communications, Vol. 5, No. 1, 23–36 (2011).

[29] Decomposition of places in dihedral and cyclic quintic trinomial extensions
of global fields (with B. Im),
Manuscripta Mathematica, Vol. 137, No. 1-2, 107–127 (2012).

[30] Constructions of self-dual codes over $F_2 + uF_2$, (with S. Han, H. Lee)
Bull. Korean. Math. Soc., Vol. 49, No. 1, 135-143 (2012).

[31] Construction of quasi-cyclic self-dual codes (with S. Han, J.-L. Kim, H. Lee),

Finite Fields and their applications, Vol. 18, No. 3, 613-633 (2012).

[32] MacWilliams duality and a Gleason-type theorem on self-dual bent functions, (with J. Hyun, H. Lee) *Designs, Codes and Cryptography*, Vol. 63, No. 3, 295-304 (2012).

[33] Coefficients of exponential functions attached to Drinfeld modules of rank 2, (with I. Chen), *Manuscripta Mathematica*, Vol. 139, No. 1-2, 123-136 (2012).

[34] Construction of extremal self-dual codes over $F_2 + uF_2$ with an automorphism of odd order(with H.J. Kim),
Finite fields and their applications, Vol. 18, No. 5 (2012), 971-992.

[35] Corrigendum to "Construction of extremal self-dual codes over $F_2 + uF_2$ with an automorphism of odd order" (with H.J. Kim),
Finite fields and their applications, Vol. 23, (2013) 103–104.

[36] Newton polygons, successive minima, and different bounds for Drinfeld modules of rank 2, (with I. Chen)
Proc. Amer. Math. Soc., 141 (2013), no. 1, 83–91.

[37] Thin additive bases for monic polynomials in $F_q[t]$ (with A. Bender, B. Im),
Bull. Korean Math. Soc. 50 (2013), No. 2, pp. 399–405.

[38] Infinite families of elliptic curves over Dihedral quartic number fields,
Journal of Number Theory, Vol. 133, Issue 1, 115-122 (2013).
(with D. Jeon and C. Kim)

[39] Classification of extremal self-dual quaternary codes of lengths 30 and 32 (with H.J. Kim), *IEEE transactions on information theory*, Vol. 59 (April, 2013), No. 4, 2352-2358.

[40] Galois Characters arising from Drinfeld modules (with S. Chang),
J. Number Theory 133 (2013), no. 3, 888–896.

[41] Explicit expression of the Krawtchouk polynomial via a discrete Green's function,
J. Korean Math. Soc., 50 (2013), No. 3, pp. 509-527.

[42] Explicit isogeny theorems for Drinfeld modules (with I. Chen),
Pacific Journal of Mathematics, 263 (2013), No. 1, 87-116.

[43] A Cheeger inequality of a distance regular graph using the Green's function (with G. Kim), *Discrete Mathematics*, Vol. 313 (2013), Issue 20, 2337-2347.

[44] Nonexistence of certain types of plateaued functions (with J. Hyun, H. Lee),
Discrete Applied Mathematics, Vol. 161, Issues 16-17 (2013), 2745-2748.

[45] Hermitian self-dual codes over $F_{2^{2m}} + uF_{2^{2m}}$ (with H.J. Kim),
Finite fields and their applications, 25 (2014), 106-131.

[46] Necessary conditions for the existence of regular p-ary bent functions,
IEEE transactions on information theory, Vol. 60, No. 3 (2014), 1665-1672.

(with J.Y. Hyun, H. Lee)

[47] Boolean functions with MacWilliams duality (with J.Y. Hyun, H. Lee),
Designs, Codes and Cryptography, Volume 72, Issue 2 (2014), 273-287.

[48] Families of elliptic curves with prescribed torsion subgroups over dihedral quartic fields,
(with D. Jeon and C. Kim)
Journal of Number Theory, 147 (2015) 342-363.

[49] An Efficient Construction of Self-Dual Codes (with J. Kim),
Bull. Korean Math. Soc., Vol 51, No. 3 (2015) 915-923.

[50] Codes over Rings and Hermitian Lattices (with S. Dougherty, J-L. Kim),
Designs, Codes and Cryptography, Vol 76, No 3, (2015) 519-535.

[51] Construction of all cubic function fields of a given square-free discriminant,
(with M. Jacobson, R. Scheidler and H. Williams),
International Journal of Number Theory, Vol. 11, No. 6 (2015) 1839-1885.

[52] Corrigendum to *A Cheeger inequality of a distance regular graph using
Green's function* (with G.C. Kim), Discrete Math. 338 (2015), no. 9, 1621-1623.

[53] Explicit criterions for p-ary functions being non-bent, (with J. Hyun)
Journal of Mathematical Analysis and Applications (J. Math. Anal. Appl.),
Vol. 433, No. 2, 1177-1189 (2016).

[54] Modularity of a Ramanujan-Selberg continued fraction, (with Y. Park)
Journal of Mathematical Analysis and Applications, vol. 438, 373-394, 2016.

[55] Indivisibility of class numbers of real quadratic function fields, (with J. Lee)
Journal of Pure and Applied Algebra, Volume 220, Issue 8, 2828-2835, 2016.

[56] The level 13 analogue of the Rogers-Ramanujan continued fraction and its
modularity, (with Y. Park) *Journal of Number Theory*, Vol. 168, 306-333, 2016.

[57] Construction of extremal self-dual codes over Z_8 and Z_{16}, (with B. Kim)
Designs, Codes and Cryptography, 81 (2016), no. 2, 239-257.

[58] Complementary information set codes over $GF(p)$, (with H.J. Kim)
Designs, Codes and Cryptography, 81 (2016), no. 3, 541-555.

[59] Explicit criteria for construction of plateaued functions, (with J. Hyun, J. Lee)
IEEE Transactions on Information Theory, Vol. 62 (2016), Issue 12, 7555-7565.

[60] An upper bound of the Cheeger constant of a distance regular graph,
(with G. Kim), *Bull. Korean Math. Soc.*, Vol. 54, No. 2 (2017), 507-519.

[61] Fundamental units and regulators of an infinite family of quartic function fields
(with J. Lee), J. Korean Math. Soc. vol. 54, No. 2 (2017), 417 - 426.

[62] t-CIS codes over $GF(p)$ and orthogonal covering arrays, (with H. Kim)
Discrete Applied Mathematics, 217, part 3 (2017), 601-612.

[63] Regulators of an infinite family of the simplest quartic function fields, (with J. Lee)

Canadian Journal of Mathematics, Vol. 69, No. 3 (2017), 579-594.

[64] Lee weights of cyclic self-dual codes over Galois rings of characteristic p^2,
(with B. Kim), *Finite fields and their applications*, Vol. 45 (2017), 107-130.

[65] Construction of isodual codes over $GF(q)$, (with H. Kim)
Finite fields and their applications, Vol. 45 (2017), 372-385.

[66] A level 16 analogue of Ramanujan series for $1/\pi$, (with Y. Park)
Journal of Mathematical Analysis and Applications, Vol. 456 (2017), 177-194.

[67] Constructions of formally self-dual codes over Z_4 and their weight enumerators,
(with B. Kim and J. Yoo), *IEEE Transactions on Information Theory*,
Vol. 63, Issue 12 (2017), 7667-7675.

[68] A continued fraction of order twelve as a modular function, (with Y. Park)
Mathematics of Computation, Vol. 87, Number 312, July (2018), 2011-2036.

[69] J. Lee and Y. Lee,
Regulators and class numbers of an infinite family of quintic function fields,
Acta Arithmetica, 185 (2018), no. 2, 107–125.

[70] Three Ramanujan continued fractions and their modularity (with Y. Park),
Journal of Number Theory, Vol. 188 (2018), 299-323.

[71] A mass formula for cyclic codes over Galois rings of characteristic p^3 (with B. Kim),
Finite fields and their applications, Vol. 52 (July 2018), 214-242.

[72] Characterization of certain types of plateaued functions (with J. Hyun, J. Lee),
J. Korean Math. Soc. 55 (Jan. 2018), No. 6, 1469-1483.

[73] Extremal quasi-cyclic self-dual codes over finite fields (with H. Kim),
Finite fields and their applications, Vol. 52 (July 2018), 301-318.

[74] Indivisibility of divisor class numbers of Kummer extensions of the rational
function field (with J. Yoo), *Journal of Number Theory* 192 (2018), 270–292.

[75] The minimum weights of two-point AG codes on norm-trace curves (with B. Kim),
Finite fields and their applications, Vol. 53, Sep. 2018, 113-139, 2018

[76] Characterization of weakly regular p-ary bent functions in terms of
strongly regular graphs (with J. Hyun),
IEEE Transactions on Information Theory, Vol. 65 (Jan. 2019), No. 1, 676-684.

[77] History, tradition, and development of journals of the Korean Mathematical Society,
Science Editing, Vol. 5, No.2, 113-118, 2018.
(with K. Lee & S.D. Jung, Scopus journal)

[78] Modular equations of a continued fraction of order six (with Y. Park),
Open Mathematics, Vol. 17, Issue 1, 202-219, 2019.

[79] Explicit surjectivity results for Drinfeld modules of rank 2, (with I. Chen)
Nagoya Mathematical Journal, Vol. 234, 17-45, June 2019.

[80] Classification of cyclic codes over a non-Galois chain ring $Z_2[u]/(u^3)$,
Finite fields and their applications, Vol. 59, 208-237, Sep. 2019.
(with B. Kim and J. Doo).

[81] Infinite families of irregular primes in cyclotomic function fields (with J. Lee),
Journal of Number Theory, Vol. 207, 1-21, Feb. 2020.

[82] Ramanujan graphs and expander families constructed from p-ary bent functions
(with J. Hyun, J. Lee),
Designs, Codes and Cryptography, Vol. 88, Issue 2, 453-470, Feb. 2020.

[83] Infinite families of MDR cyclic codes over Z_4 via constacyclic codes
over $Z_4[u]/\langle u^2 - 1\rangle$ (with N. Han, B.H. Kim, B. Kim),
Discrete Mathematics, Vol. 343, Issue 3, 1-12, 2020.

[84] Binary LCD codes and self-orthogonal codes via simplicial complexes,
IEEE Communications Letters, Vol. 24, Issue 6, 1159-1162, June 2020 (with Y. Wu).

[85] Infinite families of optimal linear codes constructed from simplicial complexes,
IEEE Transactions on Information Theory, Vol. 66, No. 11, 6762-6773, 2020.
(with J. Hyun and J. Lee)

[86] Classification of self-dual cyclic codes over a chain ring $Z_p[u]/\langle u^3\rangle$ (with B. Kim),
Designs, Codes and Cryptography, Vol. 88, Issue 10, 2247-2273, 2020 (October).

[87] Construction of reversible self-dual codes (with H. Choi, J. Kim)
Finite fields and their applications, Vol. 67, 101714, October 2020.

[88] Designing DNA codes from reversible self-dual codes over $GF(4)$,
Discrete Mathematics, Vol. 344, Issue 1, 112159, January 2021.
(with H. Choi, J. Kim)

[89] Construction of single-deletion-correcting DNA codes using CIS codes,
Designs, Codes and Cryptography, Vol. 88, No. 12, 2581-2596, 2020,
(with H. Choi, J. Kim)

[90] Self-orthogonal codes constructed from posets and their application in quantum
communication, *Mathematics*, Vol. 8, Issue 9, 1-14, 2020 (with Y. Wu).

[91] A Ramanujan function $k(\tau) = r(\tau)r^2(2\tau)$ and its modularity, (with Y. Park)
Open Mathematics, Vol. 8, Issue 1, 1727-1741, 2020.

[92] Infinite families of cyclotomic function fields with any prescribed class group rank,
Journal of Pure and Applied Algebra, vol. 225 (2021), no. 9, 106658.

[93] New LCD MDS codes of non-Reed-Solomon type, (with Y. Wu, J. Hyun)
IEEE Transactions on Information Theory, Vol. 67, Issue 8, 5069-5078, 2021.

[94] Class invariants by Siegel resolvents and modularity of their Galois traces,
To appear in *The Ramanujan Journal*, 2021 (accepted for publication) (with H. Jung).

[95] Connection of p-ary t-weight linear codes to Ramanujan Cayley graphs with

$t + 1$ eigenvalues, (with J. Hyun and Y. Wu)
To appear in *Advances in Mathematics of Communications*, 2021 (accepted for publication).

[96] Non-vanishing of L-functions for cyclotomic characters in function fields,
To appear in *Proc. Amer. Math. Soc.*, 2021 (accepted for publication) (with J. Lee).

[97] Characterization of a p-ary function in terms of association schemes and its applications,
To appear in *Journal of Combinatorial Theory A*, 2021 (with Y. Wu, J. Hyun).

[98] An infinite family of Griesmer quasicyclic self-orthogonal codes,
Finite Fields and Their Applications, Vol. 76, 101923, Sep. 2021.
(with B.H. Kim and J. Yoo)

[99] Further improvement on index bounds,
To appear in *Designs, Codes and Cryptography*, Sep. 2021 (accepted for publication).
(with Y. Wu, Q. Wang)

[100] Self-orthogonal codes over Z_4 arising from the chain ring $Z_4[u]/(u^2 + 1)$,
Finite Fields and Their Applications, Vol. 78, 101972, Feb. 2022.
(with N. Han, B. Kim)

Conference Organizers/Program Committee

Organizer of *Intensive Lecture Series on Support t-designs of Linear Codes*
        by Cunsheng Ding; Ewha Womans University, Dec. 1, 2, 3, 2021.
Organizer of *Intensive Lecture Series on Error-Correcting Codes*
        by W. Cary Huffman; Ewha Womans University, Nov. 5, 12, 19, 2021.
Organizer of *Intensive Lecture Series on Bent and Plateaued Functions*
        by Sihem Mesnager; Ewha Womans University, Oct. 8, Oct. 13, Oct. 15, 2021.
Organizer of the *2021 International Conference on Computational Mathematics*;
        Ewha Womans University, Aug. 25-27, 2021.
Organizer of the *2021 Ewha-KMS IWC: Theory and Applications in Cryptography*;
        Ewha Womans University, June 23-25, 2021.
Program committee of the *ANTS XIII: Algorithmic Number Theory Symposium*;
        Wisconsin, US, July 16-20, 2018.
Organizer of the *2018 International Workshop on Graph Theory*;
        Ewha Womans University, Jan. 4-7, 2018.
Organizer of the *2017 International Workshop on Computational Mathematics*;
        Ewha Womans University, Dec. 14-17, 2017.
Organizer of the *2016 International Workshop on Graph Theory and Combinatorics*:
        Ewha Womans University, Feb. 18-20, 2016.
Organizer of the *15th SIAM Conference in Applied Algebraic Geometry (AG15)*:
        Minisymposium session on *Class Groups of Global Function field*s,
        August 3-7, 2015, Daejeon, S. Korea.
Organizer of *Intensive Lecture Series on Dynamical Arithmetics*
        by C. Lee (Soongsil University),
        Ewha Womans University, June 24 - July 2, 2015 (four lectures).

Organizer of *Intensive Lecture Series on Algorithmic Number Theory on Function Fields
   by R. Scheidler* (University of Calgary),
   Ewha Womans University, Sep. 12 - October 24, 2014 (six lectures).
Organizer of *2014 ICM Satellite Conference on Algebraic Coding Theory,*
   Ewha Womans University, Aug. 11-12, 2014.
Local organizing committe of *ICWM 2014 Conference,*
   Ewha Womans University, on Aug. 12, Aug. 14, 2014.
Organizer of *Intensive Lectures on Drinfeld modules by Y. Taguchi* (Kyushu University),
   Ewha Womans University, June 17-19, 2013.
Organizer of *Korea-Japan Conference on Number Theory and its Related Topics,*
   Ewha Womans University, Jan. 21–24, 2013.
Organizer of *2012 KIAS International Conference on Coding Theory and Applications,*
   KIAS(Korea Institute for Advanced Study), Seoul, Nov. 15–17, 2012.
2012 The 9th KWMS International Conference,
   (Organizer of Algebra Session),
   June 21 - 22, 2012, Ewha Womans University.
Organizer of *International Conference on Coding and Cryptography,*
   Ewha Womans University, Aug. 24-26, 2011.
2009 International Conference for Women in Mathematics, June 18-19, 2009 (KIAS)
   the Sixth KWMS International Conference (Organizer for Algebra session)
International Symposium on Automorphic Forms, L-Functions and Shimura Varieties
   (organizer and chair of opening session), Nov. 25 - Nov. 27, 2008 .
2008 International Conference for Women in Mathematics,
   the Fifth KWMS International Conference
   (organizer, chair of opening session and algebra session),
   June 16 - 17, 2008 (Ewha W. University).
2008 Ewha-KMS International Workshop on Cryptography
   (organizer and chair of opening session), Ewha W. University, June 19 - 20, 2008.
Workshop: Intensive Lectures on Mathematical Problems in Cryptography
   (organizer), Ewha W. University, Jan. 28-29, 2008.

Presentation: Invited Talks and Contributed Talks

The *15th SIAM Conference in Applied Algebraic Geometry (AG15)* Conference:
   Minisymposium session in *Class Groups and Zeta Functions,*
   August 3-7 (invited talk on Aug. 4), 2015, Daejeon, S. Korea.
   (Title: Construction of All Cubic Function Fields of a Given Discriminant)
The *15th SIAM Conference in Applied Algebraic Geometry (AG15)* Conference:
   Minisymposium session in Coding Theory,
   August 3-7 (invited talk on Aug. 3), 2015, Daejeon, S. Korea.
   (Title: Self-dual codes and quasi-cyclic self-dual codes over finite fields and finite rings)
2014 KWMS Leaders Forum, panel speaker,
   Nov. 7, 2014, KIAS, S. Korea.
Conference on *the Arithmetic of Function Fields and Related Topics,*
   Feb. 18-22, 2013, Pusan, S. Korea.

(Title: Explicit isogeny theorems and different bounds of Drinfeld modules)

(talk on Feb. 19, session chair on Feb. 20)

IMS-NTU Workshop on Coding and Cryptography in Singapore,
Nanyang Technological University, Singapore,
May 22-27, 2011, Invited talk presented on May 24, 2011.
(Title: *Building-up construction of self-dual codes and self-dual codes
with an automorphism of prime order*)

Hanyang University Math Department Colloquium, May 12, 2011.
(Title: *Reflection Theorem for class groups of global function fields
and its applications)*

Nanyang Technological University, Singapore
Invited talk presented on Aug. 4, 2010.
(Title: *Class groups of global function fields*)

AGC 2010: International Conference on Algebraic and Geometric Combinatorics,
Gyeongju, S. Korea, July 12-16, 2010.
Invited talk presented on July 15, 2010.
(Title: *Building-up construction of self-dual codes*)

2010 NCTS Taiwan-Korea Workshop on Number Theory, Taiwan, July 5-6, 2010.
Invited talk presented on July 6, 2010.
(Title: *Surjectivity results and exponential functions attached to rank 2
Drinfeld modules*)

2010 KWMS International Conference for Women in Mathematics (the 7th one)
Chungnam National University, June 21-22, 2010.
Poster presentation (with Jiae Kim).
(Title: Self-dual Code Construction over $GF(p^k)$ and Z_{p^k}
via Diophantine Equations)

AMS Sectional Meeting: 2010 Spring Southeastern Sectional Meeting,
Special session on *Advances in Algebraic Coding Theory*
in Lexington (University of Kentucky) KY, US, March 27-28, 2010.
Invited talk presented on March 27, 2010.
(Title: *Construction of MDS self-dual codes and quasi-cyclic self-dual codes*)

University of Louisville, Colloquium or Department seminar, March 26, 2010
(Title: *Class Groups of Global Function Fields*)

Korea-Japan Number Theory Conference, Seoul National University, 1/20/2010-1/23/2010
invited talk presented on Jan. 20, 2010.
(Title: *Construction of Cubic Function Fields from Quadratic Infrastructure*),

AMS Joint Meetings, invited talk at AMS Special Session on Arithmetic of Function Fields,
San Francisco, USA, January 13-16, 2010 (Wed. - Sat.)
(Title: *The Reflection Theorem for class groups of global function fields
and its applications*), presented on Jan. 14, 2010.

2009 IEEE International Symposium on Information Theory (ISIT 2009),
Seoul, S. Korea, July 3, 2009.
(Title: *Self-dual codes using building-up constructions*)

2009 IEEE International Symposium on Information Theory (ISIT 2009),

Seoul, S. Korea, July 3, 2009.

(Title: *Construction of cubic self-dual codes*)

Kyungpook University Math Department Colloquium, May 22, 2009.

(Title: *Class groups of global function fields*)

Ajou University Math Department Colloquium, December 5, 2008.

(Title: *The structure of class groups of global function fields*)

International Workshop: Women in Numbers (WIN) (Invited speaker)

November 2-7, 2008, Banff International Research Station, Canada

(Title: Class groups of function fields II - Increasing the class group rank)

ASARC Number Theory Conference, August 18-21, 2008.

(Title: *Class groups of global function fields*)

(organized by Algebraic Structure and its Applications Research Center)

Inha University Math Department Colloquium, May 15, 2008.

(Title: *The structure of class groups of global function fields*)

Yonsei University Math Department Colloquium, April 17, 2008.

(Title: *Class Groups of Global Function Fields*)

Korea Institute for Advanced Study Number Theory Seminar, March 27, 2008.

(Title: *Hyperelliptic function fields of high three rank*)

Invited speaker at the Number Theory special session of KMS meeting,

(Title: *Cubic Function Fields from Quadratic Infrastructure*), Oct. 21, 2007.

Ewha W. University, Invited talk at Math Department, May 2, 2007

(Title: *Construction of Cubic Function Fields from Quadratic Infrastructure*)

Ewha W. University, Invited talk at Math Department, April 27, 2007

(Title: *Number Theory and its applications to Cryptography and Coding Theory*)

University of British Columbia and Simon Fraser University joint number theory seminar,

November 9, 2006

(Title: *Construction of Cubic Function Fields from Quadratic Infrastructure*)

Invited speaker for the Workshop at the Fields Institute, Toronto, Canada,

−*Computational challenges arising in algorithmic number theory and Cryptography*

(Title: *Construction of Cubic Function Fields from Quadratic Infrastructure*)

Oct. 30 - Nov. 3, 2006.

Annual Summer Workshop on Computational Mathematics at Simon Fraser University:

CECM day on August 9, 2006

(Title: *Computing the fundamental units and regulators of a cubic function field*)

Simon Fraser University Math Camp, June 27, 2006

(Title: *Public Key Cryptography: Protecting our secrets and our identities*)

University of Calgary, Discrete Mathematics Seminar, March 31, 2006

(Title: *The structure of class groups of global function fields*)

Korea Institute for Advanced Study Number Theory Seminar, December 22, 2005.

(Title: *The structure of class groups of global function fields*)

University of British Columbia, UBC and SFU joint number theory seminar,

November 24, 2005

(Title: *The structure of the class groups of global function fields of any unit rank*)

Ewha Womans University, Invited talk at Math Department, May 20, 2005

(Title: *The Scholz Theorem of quadratic function fields for divisor class groups and ideal class groups*)

Simon Fraser University, Research talk, March 4, 2005.

(Title: *Divisor class groups and ideal class groups of relative quadratic function fields*)

University of North Carolina, Greensboro, Math Department seminar talk, February 24, 2005.

(Title:*Divisor class groups and ideal class groups of quadratic function fields*)

Ohio State University, Research talk, February 21, 2005.

(Title: *The Scholz Theorem of quadratic function fields for both ideal class groups and divisor class groups*)

Ohio State University, Undergraduate talk, February 22, 2005.

(Title: *Public Key Cryptography: Protecting our secrets and our identities*)

California State University, Chico, Colloquium talk, February 11, 2005.

(Title: *The Scholz Theorem of quadratic function fields for both ideal class groups and divisor class groups*)

California State University, Chico, Undergraduate talk, February 11, 2005.

(Title: *Public Key Cryptography: Protecting our secrets and our identities*)

Korea Institute for Advanced Study Number Theory Seminar, December 28, 2004.

(Title: *Reflection Theorems of quadratic function fields for divisor class groups and ideal class groups*)

University of Calgary, Discrete Mathematics Seminar, November 24, 2004

(Title: *Divisor class groups and ideal class groups of relative quadratic function fields*).

Seoul National University, Number Theory Seminar, August 13, 2004.

(Title: *Divisor class groups of relative quadratic function fields*).

Seoul National University, Number Theory Seminar, August 12, 2004.

(Title: *Reflection Theorem and the distribution of class groups of number fields*).

Korea Institute for Advanced Study Number Theory Seminar, July 27, 2004.

(Title: *Subgroups of any order in class groups of global function fields*).

Korea Advanced Institute of Science Technology Math Dept Seminar, July 23, 2004.

(Title: *Subgroups of any order in class groups of global function fields*).

The 1st International Workshop for Korean Women in Mathematics
at Korea Institute for Advanced Study, June 21-23, 2004.

invited talk on June 21, 2004.

(Title: *Class Groups of Global Function Fields: Hyperelliptic Function Fields and Imaginary Function Fields*).

Seoul National University, research talk, May 29, 2004.

(Title: *Computing the Fundamental Units of cubic function fields*).

Smith College, Math Department Faculty Seminar, February 23, 2004.

(Title: *Computing invariants of cubic function fields*).

Ewha Women's University, Joint Seminar of Math Dept and Math Education Dept,
August 26, 2003

(Title: *Computation of the Fundamental Units of a Cyclic Cubic Function Field*).

Korea Institute for Advanced Study Number Theory Seminar, August 7, 2003.

(Title: *Computation of the Fundamental Units and the Regulator of a Cyclic Cubic Function Field*).

Pohang University of Science and Technology Math Dept Seminar, August 1, 2003.
 (Title: *Computation of the Fundamental Units and the Regulator of a Cyclic Cubic Function Field*).
Korea Institute for Advanced Study Number Theory Seminar, July 3, 2003.
 (Title: *Cohen-Lenstra Heuristics and the Spiegelungssatz*).
West Coast Number Theory Conference at San Francisco State University, CA,
 December 18, 2002
 (Title: *Escalatory case and non-escalatory case in Function Fields*).
Smith College, Math Dept Faculty Seminar, April 3, 2002
University of Calgary, Discrete Mathematics Seminar, November 23, 2001
Illinois Number Theory Conference at University of Illinois, Urbana-Champaign,
 May 19, 2001 (Title: *Fundamental Units in Cubic Function Fields*).
West Coast Number Theory Conference at University of San Diego, CA,
 December 17, 2000.
University of Delaware, Discrete Mathematics Seminar, October 27, 2000.
University of Arizona Math Dept Seminar, April 4, 2000.
Arizona State University Math Dept Seminar II, October 27, 1999.
Arizona State University Math Dept Seminar I, October 20, 1999.
Korea Institute for Advanced Study Number Theory Seminar, June 30, 1999.
Ewha Women's University Math Dept Seminar, June 23, 1999.
Korea Advanced Institute of Science & Technology Math Dept Seminar, June 21, 1999.
Pohang University of Science and Technology Math Dept Seminar, June 15, 1999.
Southwest Texas State University Math Dept Seminar, March 23, 1999.

Professional Services: Referee and Reviewer

Reviewer for *Zentralblatt MATH* since September 2013
Referee for the *Finite Fields and Their Applications* since 2012
Referee for the *Designs, Codes and Cryptography* since 2012
Referee for the *American Mathematical Monthly*, 2011
Referee for the *IEEE Transactions on Information Theory* since 2008
Referee for the *Advances in Mathematics of Communication* since 2009
Referee for the *Proceedings of the American Mathematical Society* since 2007
Referee for the *Bulletin of Korean Mathematical Society* since 2012
Referee for the *Rocky Mountain Journal*, 2007
Referee for the *International Journal of Information and Coding Theory*, 2007, 2009
Referee for the *Journal of Number Theory*, 2006
Referee for the *Applied Mathematics Letters*, 2005
Referee for the *Proceedings of the American Mathematical Society*, 2004
Reviewer for *Mathematical Reviews of American Mathematical Society* since 2002
Reviewer for *Prentice Hall Publishing Company*, 2004
 (reviewed some text book on Discrete Mathematics)
Reviewer for *Jones and Bartlett Publishing Company*, 2004
 (reviewed some text book on introductory number theory)

Publication of Books

- *You can count on monsters* by Richard Evan Schwartz,
    – translation of English to Korean
    Publisher: Jiyangsa, Sep. 27, 2011.
    This Korean edition was published by Kidbook Publishing Co. in 2011
    by arrangement with A.K. Peters

Academic Services

• **Professional committee and members**

Leader of BK21 PLUS research team
    – "Mathematical Science Team for Global Woman Leaders"
Editor of Bulletin of Korean Mathematical Society, 2015/03/01 - 2018/03/01.
Algebra Session Committee of Korea Mathematical Society, 2015/03/01 - 2018/03/01.
Associate member of KIAS (Korea Institute for Advanced Study), 2007/09/01 - current.
Member of board of directors of KWMS, 2012/06/22-2013/06/21.
(Korean Women in Mathematical Sciences)

• **Conference Session Chair**

Organizer of *ICM Satellite Conference on Algebraic Coding Theory*,
    Ewha Womans University on Aug. 11-12, 2014.
Intensive Lectures on Drinfeld modules by Y. Taguchi
    (organizer), Ewha W. University, June 3-5, 2013.
Organizer of *2013 Korea-Japan Conference on Number Theory*,
    Ewha Womans University on Jan. 21–24, 2013.
A master of meeting with the president of *International Mathematical Union*
    (Title - Sage's Path: Discovering her journey-Professor Ingrid Daubechies!),
    LG convention hall, Ewha Womans Univ., July 13, 2012.
2012 The 9th KWMS International Conference,
    (Organizer of Algebra Session),
    June 21 - 22, 2012, Ewha Womans University.
Organizer of *International Conference on Coding and Cryptography*,
    Ewha Womans University, Aug. 24-26, 2011.
2010 KMS Fall Conference, Postech, Oct. 22, 2010.
    chair of special session: Coding Theory
AWMS-AWM Networking and Mentoring session,
    session chair, Ewha W. University, Dec. 19, 2009.
2009 International Conference for Women in Mathematics, June 18-19, 2009 (KIAS)
    the Sixth KWMS International Conference (Organizer for Algebra session)
2009 KMS Spring Conference, Ajou University, April 25, 2009
    chair of special session: Coding Theory
International Symposium on Automorphic Forms, L-Functions and Shimura Varieties
    (organizer and chair of opening session), Nov. 25 - Nov. 27, 2008 .
2008 International Conference for Women in Mathematics,
    the Fifth KWMS International Conference
    (organizer, chair of opening session and algebra session),
    June 16 - 17, 2008 (Ewha W. University).

2008 Ewha-KMS International Workshop on Cryptography
        (organizer and chair of opening session), Ewha W. University, June 19 - 20, 2008.
Workshop: Intensive Lectures on Mathematical Problems in Cryptography
        (organizer), Ewha W. University, Jan. 28-29, 2008.

● **Ewha Womans University**

Leader of BK21 PLUS team (2013-2020)
        – "Mathematical Science Team for Global Woman Leaders"
Scranton College (Scranton Honors program) Adjunct Professor, 3/1/2009 - current.
Chair of Information Protection Associated Major program,
2/1/2010 - 7/31/2013, 2/1/2016- 6/14/2017.
International Exchange Committee (in College of Natural Sciences), 9/1/2017 - 2/28/2018.
Chair of Mathematics Department, 2/1/2010 - 1/31/2012.
Head of Division of Mathematical and Physical Sciences, 8/1/2010 - 1/31/2012.
Accountant of Graduate Alumnae, 8/1/2011 - 6/30/2013.
Advisory Committee of Student Affairs, 7/1/2009 - 6/30/2010.
Special Lecture for computer science major students
        - Title: *Introduction to Public-key Cryptography*, May 6, 2010
Religion Committee, 3/1/2015 - 2/28/2016, 3/1/2009 - 2/28/2010.
Supervisor of Actuarial Science Team, 3/1/2009 - 2/28/2010.
International Exchange Committee (in College of Natural Sciences), 3/1/2008 - 2/28/2010.
Organizer of Math Department Colloquium, Sep. 1, 2007 - December 10, 2008.

Supervision of Ph. D. program students:
– Boran Kim, 3/1/2011 - 8/31/2017 (current: faculty at Kyungpook National Univ.)
– Jinjoo Yoo, 3/1/2013 - 8/31/2019 (current: Postdoc at UNIST)
– Nayoung Han, 3/1/2019 - current
– Jihye Jeong, 3/1/2020 - current
– Siyoon Lee, 9/1/2020 - current
Supervision of Master's Thesis students:
        – Jinjoo Yoo, Jiae Kim, 9/1/2008 - 2/28/2010
        – Boran Kim, 3/1/2009 - 2/28/2011
        – Hyun-Hee Kim, 9/1/2010 - 8/31/2013
        – Jung-Im Park, 9/1/2009 - 8/31/2012
        – Yesel Jun, 3/1/2011 - 2/28/2013
        – Eunhye Lee, 9/1/2011 - 2/28/2013
        – Yoonkyung Jang, 3/1/2011 - 8/31/2013
        – Minjung Lee, 3/1/2012 - 8/31/2014
        – Boreum Kim, 3/1/2012 - 2/28/2015
        – Seung Hee Kim, 3/1/2013 - 2/28/2015
        – Jisoo Doo, 3/1/2016 - 2/28/2018
        – Bohyun Kim, 3/1/2017 - 2/28/2019
        – Nayoung Han, 3/1/2017 - 2/28/2019
        – Youngin Cho, 3/1/2018 - 2/29/2020
        – Jihye Jeong, 3/1/2018 - 2/29/2020

      – Siyoon Lee, 3/1/2019 - 2/28/2021
      – Shinyoo Park, 3/1/2020 - current
      – Woojung Choi, 9/1/2021 - current
Mentor of Post Doctoral Fellows or Research Assistant Professors:
      – Jigu Kim, 3/1/2020 - current
      – Yansheng Wu, 9/1/2019 - 8/31/2020
      (current: faculty at Nanjing Univ. of Posts and Telecommunications)
      – Jinjoo Yoo, 9/1/2019 - 8/31/2020 (current: postdoc at UNIST.)
      – Hoyun Jung, 8/1/2019 - 2/29/2020 (current: faculty at Dankook Univ.)
      – Boran Kim, 9/1/2017 - 7/31/2019 (current: faculty at Kyungpook National Univ.)
      – Yoonkyung Park, 8/1/2015 - 8/31/2018 (current: faculty at Seoul Tech. Univ.)
      – Jungyun Lee, 3/1/2014 - 2/28/2019 (current: faculty at Gangwon Univ.)
      – Hyun Jin Kim, 3/1/2011 - 2/28/2016 (current: faculty at Yonsei Univ.)
      – Jong Yoon Hyun, 10/1/2009 - 8/31/2015 (current: faculty at Konkuk Univ.)
      – S. Choi, 9/1/2012 - 10/31/2013 (current: Samsung Electrics Company)
      – Gilchun Kim, 7/1/2011 - 2/29/2013 (current: faculty at Dong-Ah Univ.)
      – Seungwhan Chang, 1/1/2010 - 2/28/2012
      – Sunghyu Han, 9/1/2007 - 2/28/2008
      (current: faculty at Korea Univ. of Tech. and Edu.)

• Simon Fraser University

Tenure and Promotion Committee, Simon Fraser University, Fall 2005 - Summer 2007.
MATH 491 *Honors Essay* course for Jacob Groundwater, Fall of 2006.
Supervision of undergraduate research student: May 2006 - August 2006
      – Jacob Groundwater, URSA summer student funded by: NSERC
      (Project title: Algebraic Coding theory- Construction of Self-dual codes
      and Quasicyclic codes over finite fields).
Thesis defense supervisory committee, July 27, 2006
      – Desmond Leung's Master's Thesis
      (Title: Small Prime Solutions to Cubic Diophantine Equations)
Giving a talk at Math camp for high school students on June 27, 2006
      (Title: Public Key Cryptography: Protecting Our Secrets).
Information session for undergraduate students on preparing for graduate school:
      run by Graduate Study Committee, Jan. 19, 2006.

• Smith College

TA supervisor for Math Forum, Fall 2004 - Spring 2005.
Career and Alumnae Panel, Smith College, Fall 2002 - Spring 2004
      (Graduate advisor for senior students and arranging allumnae panel meeting).
Second reader for a review of senior's honor thesis of , Smith College, Spring 2003.
Curriculum Review Committe, Smith College, Fall 2003.

Professional Memberships

Associate member of KIAS (Korea Institute for Advanced Study)
Korean Mathematical Society (KMS)

American Mathematical Society (AMS)
Korean Women Association in Mathematical Sciences (KWMS)
Association for Women in Mathematics (AWM)

References

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Fax: (401) 863-9013

Prof. Joseph Silverman
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Providence, RI 02912
jhs@math.brown.edu
Phone: (401) 863-1132
Fax: (401) 863-9013

Prof. Renate Scheidler
Department of Mathematics and Statistics
University of Calgary
Calgary AB, Canada T2N 1N4
rscheidl@math.ucalgary.ca
Phone: (403) 220-6628
Fax: (403) 282-5150