Curriculum Vitae of Eunjeong Yi
GENERAL ACADEMICS (9/1/03-6/2/15);
LIBERAL STUDIES (6/3/15-8/31/17);
FOUNDATIONAL SCIENCES (9/1/17–PRESENT)
TEXAS A&M UNIVERSITY AT GALVESTON (TAMUG)
EMAIL: YIE@TAMUG.EDU

- **Education**

  1. Ph.D. in Mathematics, University of Houston (UH), TX (Summer 2003), Advisor: Prof. Min Ru
     Title of Dissertation: "Nevanlinna Theory and Iteration of Rational Maps"

  2. M.S. in Mathematics, UH, TX (Summer 2000), Advisor: Prof. Min Ru
     Title of Thesis: "Riemann-Roch Theorem on Riemann Surfaces"

- **Employment**

  1. Professor with tenure (Fall 2016-Present), LIST/FSCI, TAMUG

  2. Associate Professor with tenure (Fall 2011-Summer 2016), GACD/LIST, TAMUG

  3. Assistant Professor (Fall 2006-Summer 2011), GACD, TAMUG

  4. Lecturer (Fall 2003-Summer 2006), GACD, TAMUG

- **Refereed Publications**

  1. "On the simultaneous metric dimension of a graph and its complement" (with Cong X. Kang and Iztok Peterin), *Rocky Mountain J. Math.*, to appear

  2. "On distance-s locating and distance-t dominating sets in graphs", *Discrete Math. Algorithms Appl.*, **16**, No. 4 (2024) 2350047 (20 pages).

  3. "Maker-Breaker metric resolving games on graphs" (with Cong X. Kang), *Discrete Math. Algorithms Appl.*, **16**, No. 2 (2024) 2350006 (16 pages).

  4. "On the edge dimension and the fractional edge dimension of graphs", *Discrete Appl. Math.*, **335** (2023) 120-130.

  5. "The simultaneous fractional dimension of graph families" (with Cong X. Kang and Iztok Peterin), *Acta Math. Sin. (Engl. Ser.)* (Springer), **39** (2023) 1425-1441.

  6. "Truncated metric dimension for finite graphs" (with Rafael M. Frongillo, Jesse Geneson, Manuel E. Lladser and Richard C. Tillquist), *Discrete Appl. Math.*, **320** (2022) 150-169.

  7. "Broadcast dimension of graphs" (with Jesse Geneson), *Australas. J. Combin.*, **83(2)** (2022) 243-264.

  8. "Distance-k locating-dominating sets in graphs" (with Cong X. Kang), *Bull. Inst. Combin. Appl.*, **95** (2022) 38-56.

  9. "The fractional k-truncated metric dimension of graphs", COCOA 2021, *Lecture Notes in Comput. Sci.* (Springer), **13135** (2021) 568-578.

  10. "On the connected metric dimension of graphs and their complements", *Discrete Math. Algorithms Appl.*, **13**, No. 5 (2021) 2150059 (17 pages).

  11. "Fractional Maker-Breaker Resolving Game", COCOA 2020, *Lecture Notes in Comput. Sci.* (Springer), **12577** (2020) 577-593.

  12. "Maker-Breaker resolving game" (with Cong X. Kang, Sandi Klavžar and Ismael G. Yero), *Bull. Malays. Math. Sci. Soc.*, **44** (2021) 2081-2099.

  13. "On the super domination number of graphs" (with Douglas J. Klein and Juan A. Rodríguez-Velázquez), *Commun. Comb. Optim.*, **5**, No. 2 (2020) 83-96.

  14. "Bounds on the sum of broadcast domination number and strong metric dimension of graphs", *Discrete Math. Algorithms Appl.*, **12**, No. 1 (2020) 2050010 (14 pages).

  15. "On the broadcast domination number of permutation graphs", *Theoret. Comput. Sci.*, **806** (2020) 171-183.

16. "The connected metric dimension at a vertex of a graph" (with Linda Eroh and Cong X. Kang), *Theoret. Comput. Sci.*, **806** (2020) 53-69.

17. "The fractional k-metric dimension of graphs" (with Cong X. Kang and Ismael G. Yero), *Appl. Anal. Discrete Math.*, **13** (2019) 203-223.

18. "Bounds on the sum of domination number and metric dimension of graphs" (with Cong X. Kang), *Discrete Math. Algorithms Appl.*, **10**, No. 5 (2018) 1850066 (15 pages).

19. "The fractional strong metric dimension in three graph products" (with Cong X. Kang and Ismael G. Yero), *Discrete Appl. Math.*, **251** (2018) 190-203.

20. "Disjunctive Total Domination in Permutation Graphs", *Discrete Math. Algorithms Appl.*, **9**, No. 1 (2017) 1750009 (20 pages).

21. "A Comparison between the Metric Dimension and Zero Forcing Number of Trees and Unicyclic Graphs" (with Linda Eroh and Cong X. Kang), *Acta Math. Sin. (Engl. Ser.)* (Springer), **33**, Issue 6 (2017) 731-747.

22. "The disjunctive bondage number and the disjunctive total bondage number of graphs", COCOA 2015, *Lecture Notes in Comput. Sci.* (Springer), **9486** (2015) 660-675.

23. "The effect of vertex or edge deletion on the metric dimension of graphs" (with Linda Eroh, Paul Feit and Cong X. Kang), *J. Comb.* (International Press), **6**, No. 4 (2015) 433-444.

24. "On Zero Forcing Number of Graphs and Their Complements" (with Linda Eroh and Cong X. Kang), *Discrete Math. Algorithms Appl.*, **7**, No. 1 (2015) 1550002 (10 pages).

25. "A Comparison between the Zero Forcing Number and the Strong Metric Dimension of Graphs" (with Cong X. Kang), COCOA 2014, *Lecture Notes in Comput. Sci.* (Springer), **8881** (2014) 356-365.

26. "The fractional metric dimension of permutation graphs", *Acta Math. Sin. (Engl. Ser.)* (Springer), **31** (2015) 367-382.

27. "On the geodetic number of permutation graphs", *J. Appl. Math. Comput.* (Springer), **46** (2014) 395-406.

28. "The fractional strong metric dimension of graphs" (with Cong X. Kang), COCOA 2013, *Lecture Notes in Comput. Sci.* (Springer), **8287** (2013) 84-95.

29. "Metric Dimension and Zero Forcing Number of Two Families of Line Graphs" (with Linda Eroh and Cong X. Kang), *Math. Bohem.*, **139**, No. 3 (2014) 467-483.

30. "On the Strong Metric Dimension of Permutation Graphs", *J. Combin. Math. Combin. Comput.*, **90** (2014) 39-58.

31. "On Metric Dimension of Permutation Graphs" (with Michael Hallaway* and Cong X. Kang), *J. Comb. Optim.* (Springer), **28**, Issue 4 (2014) 814-826.

32. "On Strong Metric Dimension of Graphs and Their Complements", *Acta Math. Sin. (Engl. Ser.)* (Springer), **29**, Issue 8 (2013) 1479-1492.

33. "On Metric Dimension of Functigraphs" (with Linda Eroh and Cong X. Kang), *Discrete Math. Algorithms Appl.*, **5**, No. 4 (2013) 1250060 (13 pages)

34. "Probabilistic Zero Forcing in Graphs" (with Cong X. Kang), *Bull. Inst. Combin. Appl.*, **67** (2013) 9-16.

35. "A Comparison on Metric Dimension of Graphs, Line Graphs, and Line Graphs of the Subdivision Graphs" (with Douglas J. Klein), *Eur. J. Pure Appl. Math.*, **5**, No 3 (2012) 302-316.

36. "On Zero Forcing Number of Permutation Graphs", COCOA 2012, *Lecture Notes in Comput. Sci.* (Springer), **7402** (2012) 61-72.

37. "Domination Value in Graphs", *Contrib. Discrete Math.*, **7(2)** (2012) 30-43.

38. "On Metric Dimension of Graphs and Their Complements" (with Linda Eroh and Cong X. Kang), *J. Combin. Math. Combin. Comput.*, **83** (2012) 193-203.

39. "Domination Value in $P_2 \square P_n$ and $P_2 \square C_n$", *J. Combin. Math. Combin. Comput.*, **82** (2012) 59-75.

40. "Domination in Functigraphs" (with Linda Eroh, Ralucca Gera, Cong X. Kang and Craig E. Larson), *Discuss. Math. Graph Theory*, **32(2)** (2012) 299-319.

*then TAMUG Undergraduate Student

41. "Iteration Index of a Zero Forcing Set in a Graph" (with Kiran B. Chilakamarri, Nathaniel Dean and Cong X. Kang), *Bull. Inst. Combin. Appl.*, **64** (2012) 57-72.

42. "Functigraphs: An Extension of Permutation Graphs" (with Andrew Chen, Daniela Ferrero and Ralucca Gera), *Math. Bohem.*, **136** No. 1 (2011) 27-37.

43. "Graphs 2-cell Embedded in Non-orientable Surfaces and Their Coding Sequences" (with Cong X. Kang), *Far East J. Math. Sci. (FJMS)*, **31** Issue 1 (2008) 119-129.

44. "Coding Sequences and Euler's Formula for Graphs on Surfaces" (with Siemion Fajtlowicz), *Congr. Numer.*, **184** (2007) 65-69.

45. "The Convergence Behavior of $f_\alpha(x) = (1 + 1/x)^{x+\alpha}$" (with Cong X. Kang), *College Math. J.*, **38** (2007) 385-387. [Cited as a reference in the chapter "The Exponential Function" of the book "More Calculus of a Single Variable" by P. R. Mercer, Springer, Undergraduate Texts in Mathematics, 2014] There is a Wolfram (Demonstrations Project) applet for the paper; see

    https://demonstrations.wolfram.com/TheConvergenceBehaviorOfAOneParameterFamily/

46. "Disk versus Frustum" (with Cong X. Kang), *Texas College Math. J.*, **4** (2007) 13-20.

47. "Nevanlinna Theory and Iteration of Rational Maps" (with Min Ru), *Math. Z.*, **249** (2005) 125-138. [Cited as a reference in the book "The Arithmetic of Dynamical Systems" by J. H. Silverman, Springer-Verlag, Graduate Texts in Mathematics **241**, 2007]

- **Courses Taught at TAMUG**

College Algebra (MATH 102), Pre-Calculus (MATH 150), Finite Mathematics (MATH 166), Business Calculus (MATH 142), Calculus I (MATH 151), Calculus II (MATH 152 & MATH 161), Calculus III (MATH 251), Linear Algebra (MATH 304), Differential Equations (MATH 308), Intro. Graph Theory (via MATH 485), Topics in Applied Mathematics I (MATH 311) [The course covers Linear Algebra & Vector Calculus started in Calculus III.], Methods of Applied Mathematics I (MATH 601, Graduate Course) [The course covers Linear Algebra & Complex Analysis.]

- **Supervision of TAMUG Undergraduate Students on Research**

  1. TAMUG Students Research Symposium – all resulted in awards of "Best in Category" in mathematics:

     (i) W. Rodgers, "An approach to find an arc length through ellipticE" (Spring 2009)

     (ii) M. Miller and C. Siller, "Function graphs" (Spring 2011)

     (iii) M. Hallaway, "Metric dimension and planarity of a graph" (Spring 2012)

  2. Research Projects with TAMUG undergraduate*:

     (i) "On metric dimension of permutation graphs" (with M. Hallaway* and C.X. Kang), which led to a publication in J. Comb. Optim. (Springer) in 2014.

- **Supervision of TAMUG Honor's Program Students**

  M. Miller (Spring 2011), M. Hallaway (Fall 2011), A. Martin-de-Nicolas (Spring 2012)

- **Professional Activities**

  1. A member of Ph.D. thesis stand-by committee for A.C. Martinez, Universitat Rovira i Virgili, Spain (2021)

  2. Co-Organizer (with C.X. Kang and D.J. Klein) of "Math & Sciences Seminar" at TAMUG (2014-2020)

  3. Co-Organizer of an AMS (American Mathematical Society) Special Session for Joint Mathematics Meetings (in 2015 with C.X. Kang & in 2011 with R. Gera)

  4. Co-Organizer (with C.X. Kang) of an AMS Special Session for Sectional Meetings (in Spring 2012 & in Spring 2011)

  5. Co-Organizer of a Mini-symposium at the 7th International Congress for Industrial and Applied Mathematics (in 2011 with N. Dean)

  6. Co-Organizer for CombinaTexas (in 2010 with A. Duval and D. Ferrero)

7. Invited seminar/colloquium talks given: (i) New York Combinatorics Seminar (April 2022); (ii) Seminar Series for Graduate Students at Clemson University (March 2022); (iii) Mathematics & Statistics Colloquium at Sam Houston State University (April 2015); (iv) Algebra and Combinatorics Seminar at TAMU, College Station (October 2011); (v) Discrete Mathematics Seminar at Texas State University (April 2010); (vi) Mathematics Seminar at Naval Postgraduate School (September 2008); (vii) Math Colloquium at Texas Southern University (April 2007)

8. Invited conference talks given: (i) an AMS Special Session at Joint Mathematics Meetings (January of 2024 & 2010); (ii) Online Summer School as a part of GRASCan Workshop (August 2021); (iii) a Mini-sympositum at ILAS (Linear Algebra without Borders) (July 2019); (iv) a Special Session at 9th Slovenian International Conference on Graph Theory (June 2019); (v) an AMS Special Session of Sectional Meeting (March 2019, September 2012); (vi) Conference on Partial Orders, Mixing, Majorization and Applications, at the Centro International de Ciencias A.C., UNAM, México (October 2016); (vii) Mathematics & Statistics Symposium at UKC (August 2014); (viii) a minisymposium at SIAM (Society for Industrial and Applied Mathematics) on Discrete Mathematics (June 2010)

9. Reviewer for "Mathematical Reviews" (2005-Present) & "zbMATH" (2017-Present)

10. Referee for "Discrete Applied Mathematics" (2024, 2022, 2021, 2018, 2017, 2016, 2012), "Discussiones Mathematicae Graph Theory" (2024), "The Australasian Journal of Combinatorics" (2023), "Discrete Mathematics, Algorithms and Applications" (2023), "The Computer Journal" (2019), "Theoretical Computer Science" (2018), "Ars Combinatoria" (2017), "Graphs and Combinatorics" (2016), "Applicable Analysis and Discrete Mathematics" (2015), "Contributions to Discrete Mathematics" (2015), "Houston Journal of Mathematics" (2014)

11. Editorial Board member of "Advances and Applications in Discrete Mathematics" (2013-2023) & "American Journal of Mathematics and Statistics" (2011-Present)