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Personal

Born on August 2, 1987 in Surin, Thailand

Education

Ph.D. in Applied Mathematics and Computational Science,
Department of Mathematics and Computer Science,
Faculty of Science, Chulalongkorn University, 2016
Advisor: Assistant Professor Phantipa Thipwivatpotjana, Ph.D.
Title of Dissertation: *Left- and Right-Localized Solutions of
Max-Separable Interval Linear Equations and Application*

M.Sc. in Mathematics,
Department of Mathematics and Computer Science,
Faculty of Science, Chulalongkorn University, 2012
Advisor: Associate Professor Yotsanan Meemark, Ph.D.
Title of Thesis: *Isomorphism Classes and Vertex Coloring for
Graphs $C_G(a, b)$*

B.Sc. in Mathematics (First Class Honours),
Department of Mathematics, Faculty of Science,
Chulalongkorn University, 2009
Advisor: Associate Professor Yotsanan Meemark, Ph.D.
Title of Senior Project: *Change of Basis Matrices and
Integrals of Power of Cosine*

High School in Science-Mathematics Curriculum,
Surawittayakarn School, Surin, 2005

Research Interests

Interval and Fuzzy Systems
Applied Linear Algebra
Optimization

Academic Scholarship	Science Achievement Scholarship of Thailand, 2010–2016
Research Scholarship	Thammasat University Research Fund, 2019–2020
Awards	The Second Prize: Excellent Educational Results, Ph.D. in Mathematics from Prof. Dr. Neelanithi Foundation, 2017
Languages Spoken	Thai (mother tongue) and English (intermediate)
Computer Skills	Programming (MATLAB), Mathematical Packages (Mathematica, Maple), L ^A T _E X, MS Office
Graduate Course Work	Fundamentals of Abstract Mathematics Computer Tools in Mathematics Linear and Multilinear Algebra Applied Linear Algebra Abstract Algebra I Abstract Algebra II Applied Analysis Linear Programming Theory Foundations of Operations Research I Integer and nonlinear Programming Stochastic Models Linear Network Optimization Scientific Computing

Publications

- **Leela-apiradee, W.**, Gorka, A., Burimas, K., & Thipwiwatpotjana, P. (2022). Tolerance-localized and control-localized solutions of interval linear equations system and their application to course assignment problem. *Applied Mathematics and Computation*, 421, 126930.
- Thipwiwatpotjana, P., Gorka, A., & **Leela-apiradee, W.** (2021). Solution types of two-sided interval linear system and their application on interval linear programming problems. *Journal of Computational and Applied Mathematics*, 388, 113294.
- **Leela-apiradee, W.** (2019). New characterizations of tolerance-control and localized solutions to interval system of linear equations. *Journal of Computational and Applied Mathematics*, 355, 11–22.
- **Leela-apiradee, W.**, Lodwick, W. A., & Thipwiwatpotjana, P. (2017). An algorithm for solving two-sided interval system of max-plus linear equations. *Information Sciences*, 399, 183–200.
- **Leela-apiradee, W.**, Thipwiwatpotjana, P., & Gorka, A. (2017). Closed form of L -localized solution set of max-plus interval linear system and its application on optimization problem. *Journal of Computational and Applied Mathematics*, 317, 113–127.

- **Leela-apiradee, W.**, & Thipwiwatpotjana, P. (2015). L - and R -localized solvabilities of max-separable interval linear equations and its applications. *Journal of Computational and Applied Mathematics*, 279, 306–317.
- **Leela-apiradee, W.**, & Meemark, Y. (2012). Isomorphism testings for graph $C_G(a, b)$. *Notes on Number Theory and Discrete Mathematics*, 18(3), 20–34.
- Meemark, Y., & **Leela-apiradee, W.** (2011). A change of basis matrix and integrals of power of cosine. *Journal of Statistical Planning and Inference*, 141(3), 1319–1324.

Proceedings

- Burimas, K., Thipwiwatpotjana, P., & **Leela-apiradee, W.** (2021). Control-localized solution of interval linear equation system. *Proceedings of the 25th Annual Meeting in Mathematics (AMM 2021)*, (pp. 11–24). Bangkok: King Mongkut’s Institute of Technology Ladkrabang.
- **Leela-apiradee, W.**, Thipwiwatpotjana, P., & Goraka, A. (2020). Tolerance and Control Solutions of Two-Sided Interval Linear System and Their Applications. In: Lesot M.J. et al. (eds) *Information Processing and Management of Uncertainty in Knowledge-Based Systems. IPMU 2020. Communications in Computer and Information Science*, vol 1239. Springer, Cham
- **Leela-apiradee, W.**, & Thipwiwatpotjana, P. (2019). A Ranking Method of Hexagonal Fuzzy Numbers Based on Their Possibilistic Mean Values. In: Kearfott R., Batyrshin I., Reformat M., Ceberio M., Kreinovich V. (eds) *Fuzzy Techniques: Theory and Applications. IFSA/NAFIPS 2019. Advances in Intelligent Systems and Computing*, vol 1000. Springer, Cham
- **Leela-apiradee, W.**, & Suebsriwichai, A. (2018). Closed form of solution set of fuzzy max-min system of linear equations. *Proceedings of the Annual Pure and Applied Mathematics Conference (APAM 2018)*, (pp. 86–97). Bangkok: Chulalongkorn University.
- **Leela-apiradee, W.**, & Thipwiwatpotjana, P. (2016). Acceptable product pricing problem using L -localized solutions of max-plus interval linear equations. In *2016 Annual Conference of the North American Fuzzy Information Processing Society (NAFIPS)*, (pp. 1–6). IEEE.

Conferences

- **Leela-apiradee, W.**, & Thipwiwatpotjana, P. Application of two-sided interval system of max-plus linear equations. *The 21st Annual Meeting in Mathematics & Annual Pure and Applied Mathematics Conference (AMM & APAM 2016)*, Bangkok, Thailand, May 23–25, 2016.
- **Leela-apiradee, W.**, & Thipwiwatpotjana, P. An application of L -localized solutions to an interval system of max-plus linear equations. *Annual Pure and Applied Mathematics Conference (APAM 2014)*, Bangkok, Thailand, May 1–2, 2014.
- **Leela-apiradee, W.**, & Meemark, Y. Isomorphism classes for graphs $C_G(a, b)$. *Thailand-Japan Joint Conference on Computational Geometry and Graphs (TJJCCGG 2012)*, Bangkok, Thailand, December 6–8, 2012.

Research Experiences

- Attended to do mathematical research in interval system with Professor Weldon A. Lodwick, his group and colleagues at Department of Mathematical and Statistical Sciences, University of Colorado Denver on September 2 – November 30, 2015.
- Attended to do mathematical research in fuzzy system with Professor Weldon A. Lodwick, his group and colleagues at Department of Mathematical and Statistical Sciences, University of Colorado Denver on September 8 – November 30, 2016.

Activities

- Attended the 1st Camp of Physics Academic Olympiad at Suranaree University of Technology on October 6 – 20, 2004.
- Attended the 2nd Camp of Physics Academic Olympiad at Suranaree University of Technology on March 14 – 30, 2005.
- Taught High School Physics & Mathematics, Sanfan Camp at Prasat Wittayakarn School in October 2006.
- Participated as a staff of Chula Academic Expo on November 26 –30, 2008.

References

Associate Professor Dr. Phantipa Thipwiwatpotjana (Ph.D. Advisor)
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Bangkok, 10330, Thailand
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Professor Dr. Weldon A. Lodwick
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University of Colorado Denver,
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Dr. Artur Gorka
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