Joseph Rusinko

Senior Associate Provost

Hobart and William Smith Colleges

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Education

2002–2007 **University of Georgia**, *Ph.D.*, Mathematics

1997–2001 **Davidson College**, *B.S.*, Mathematics and German, one year at Jülius Maxmillians UniversitatẄürzburg

Professional Experience

2021- **Hobart and William Smith Colleges (HWS)**, *Senior Associate Provost*

2020-21 **HWS**, *Senior Associate Dean*

2019-2020 **HWS**, *Associate Dean for Faculty Development and Affairs*

2018-2019 **HWS**, *Associate Vice President for Faculty Development and Affairs*

2015- **HWS**, *Associate Professor*

2014-2015 **Winthrop University (WU)**, *Director of Undergraduate Research: College of Arts and Sciences*

2013-2015 **WU**, *Associate Professor*

2007-2013 **WU**, *Assistant Professor*

2001-2002 **Aon Consulting**, *Actuarial Analyst*

Selected Honors and Awards

2018 William Smith Athletics Faculty Appreciation Award

2014 Distinguished Teaching Award for Beginning Faculty - Southeastern Section of the Mathematical Association of America

2013 Outstanding Junior Professor Award - Winthrop University (2013)

2012 Inaugural College of Arts and Sciences Outstanding Undergraduate Research Mentor Award - Winthrop University

SC Idea Networks for Biomedical Research - Winthrop University - Target faculty member for statewide NIH grant

2005 University Outstanding Teaching Assistant Award - U. of Georgia

Leadership Experience

Hobart and William Smith Colleges

Institutional Change Management

- On-boarded two new Provosts and a new Associate Provost.
- Enhanced trust between faculty governance and administration.
- Maintained key institutional data during personnel transitions.
- Provided empathy, support, and advocacy for staff and faculty during transitions.

Pandemic Response

- Led rapid transition to remote learning team.
- Co-chaired Campus Reopening Committee.
- Institutional modeling of course scheduling options.
- Created academic schedule honoring all faculty requests for hybrid or remote teaching.
- Assisted in Covid-19 testing.
- Managed communications regarding individual and class vaccination status.
- Developed pandemic relief tenure and promotion policies.
- Collaborated with IT to support faculty and student remote learning needs.
- Collaborated with faculty to assess student, staff, and faculty pandemic experiences.

Financial Oversight and Management

- Conducted a systematic review of 37 departmental budgets.
- Guided 34 departments in reallocating existing funding toward departmental strategic priorities and outlining specifying specific t budget needs.
- Minimized the impact of budget reductions on the student experience by identifying endowed funds that could temporarily fill budget shortfall. Prioritized cuts to faculty, staff, and operating budgets (total budget $\$30-35$ million).
- Developed financial models for travel fund expenditures and research expenditures.
- Developed models for departmental staffing needs based on different enrollment outcomes.
- Managed spending from $\$\,60,000,000$ portfolio of Endowment and Restricted Gift Accounts which fall under academic affairs.
- Led multi-year collaboration with the Advancement, Business, and Finance offices to develop the infrastructure required for appropriate financial management and reporting of Endowed Funds.
- Provided empathy, training, and technical support for faculty, staff, and administrators navigating the existing financial system.

Fundraising Experience: Collaborations with Office of Advancement

- Organized sessions connecting potential donors with student researchers.
- Enhanced personalized reporting to donors.
- Maintained and developed relationships with donors.
- Endowment funding for student research increased by over 4.5 million dollars.
- Participated in Capital Campaign development aimed at enhancing the STEM experience.
- Supported implementation of Advancement grant for revitalization of 8 classroom spaces.
- Awarded $\$250,000$ Sherman Fair child Grant to support undergraduate research.
- Advocated for purchase of a new system for managing endowed funds.
- Conducted a systematic review of endowment policies and procedures.

Faculty Development and Support

- Refocused New Faculty Orientation on developing support networks.
- Organized Opening Institutes.
- Supported department chairs in groups and individually.
- Targeted engagement with faculty in response to critical health safety needs.
- Supported faculty grant writing.
- Collaborated with IT and Human resources to restructure on-boarding practices for new faculty.
- Rewrote Chairs Handbook.
- Co-organized and Facilitated New Chairs Retreat through the New York Six Consortium.
- Instituted informal faculty mentoring program. A more formal program is expected to begin in spring 2022.
- Organized department chair, divisional, and small group faculty meetings.
- Formalized course release policy.

Faculty Management

- Interviewed and negotiated contracts with contingent faculty.
- Supported work on determining faculty staffing line allocations.
- Support departments chairs, faculty, and staff on sensitive personnel issues.
- Increased the diversity of new faculty.
- Met with faculty in response to Bias Incident Reports or concerns from students, parents, or peers.
- Supported two departments in challenging personnel transitions.

Innovation

- Member of Strategic Planning Coaches Team enabling rapid evaluation of innovative ideas across campus.
- Supported development of new curricular model designed to display the strengths and traditions of the Colleges while more openly addressing students' needs.
- Supported development of new minors.
- Supporting the development of new Master's program.

Belonging

- Increased transparency in hiring practices for candidates.
- Modified internal hiring practices to highlight the importance of inclusion.
- Insured accessibility was a primary component of classroom redesign projects.
- Supported faculty seeking disability accommodations.
- Developed STEM-Scholars program, which provides academic services, peer, faculty, and alumni mentoring, as well as targeted study space to marginalized students in STEM.
- Conducted Regular self-reflection on the ways implicit bias impacts the way I engage with others and how institutional policies and practices marginalize its members.
- Incorporated DEI focused learning goal explicitly embedded into my mathematics courses.
- Selected as a mentor for the incoming class of POSSE-LA cohort.
- Faculty Mentor for the National Alliance for Doctoral Studies in the Mathematical Sciences
- Diversity Liaison for Faculty Searches

Other Relevant HWS Experience

- Institutional Review Board Coordinator
- Ex Officio Member of Committee on Faculty
- Ex Officio Member Faculty IT Committee
- Ex Officio Member Committee on Community Engagement and Service Learning
- Untenured Faculty Representative to the Executive Committee,
- Chair: Committee on Athletics, HWS
- Faculty Representative: International Week at Technos College in Tokyo

Relevant Winthrop University Experiences

- Director of Undergraduate Research for Colleges of Arts and Sciences
- Chair: College Personnel Committee
- EAGLE-STEM Advisory Board
- McNair Scholars Mentor, and fill-in Advisory Board Member
- Member: College Curriculum Committee
- Member: College Committee on Undergraduate Assessment
- Member: University Committee on General Education
- Member: Study Abroad Initiative Committee

Funded Grants

- L. Cornish, T. Wen, P. Conklin, J. Adjodha-Evans. STEM Pathways Implementation-Only Alliance: Central New York LSAMP Alliance (CNYLA). National Science Foundation $1,999,741 (Institutional lead on $243,369 subaward) (2021-2026)
- J. Rusinko, and J. Buckley Undergraduate Research Grant. Sherman Fairchild Foundation. $247,500. (2021-2024)
- J. Forde, E. King, and J. Rusinko. REU-Site: HWS-REU: Discovering Mathematics in New York State. National Science Foundation $299,753. (2018-2022)
- J. Rusinko. RUI: Quartet-Based Approaches to Phylogenomics. National Science Foundation $180,000. (2016-2021)
- J. Rusinko. Winthrop University Research Experience for Undergraduates: Bridging Applied and Theoretical Mathematics. National Science Foundation $256,493. (2014-2018)
- J. Rusinko and T. Kull. Conference Board of Mathematical Sciences: Mathematical Phylogeny Conference. National Science Foundation $34,999. (2014)
- J. Rusinko and Z. Abernathy. Network Based Models of Cancer Growth. Mathematical Association of America's National Research Experiences for Undergraduates Program $27,500. (2013)
- J. Rusinko, K. Abernathy, and Z. Abernathy. Research Experience in Mathematics. Duke Energy Foundation $1,350. (2012)
- K. Abernathy, J. Rusinko, and K. Stallings. Mathematical Modeling of Cancer Growth. Winthrop University Research Council Grant $4,300. (2012)
- M. Neal and J. Rusinko. Application of Algebraic Geometry to Phylogeny. Winthrop University Research Council Grant $3,450. (2011)
- J. Rusinko Understanding Student Success in Math 150 using the Health Belief Model. Winthrop University Research Council Grant $2,000. (2010)

Selected Professional Development

- 2022: Aligning Strategic Priorities with Financial Resources in Higher Education, Harvard Graduate School of Education
- 2021: Virtual Conference on Transforming STEM Higher Education, AAC&U
- 2021: The Equity Challenge: Putting Equity into Practice in Higher Education, Online Learning Consortium
- 2020: Designing a Flipped Classroom, Online Learning Consortium
- 2019-2020: Preparing Successful NSF S-STEM Proposals, Rochester Institute of Technology
- 2017: Suicide Prevention Workshop, HWS
- 2016: Mental Health Supporter's Network Training, HWS
- 2012: Workshop for Mentors of Undergraduate Mathematics Research by Minority Students, Park City Mathematics Institute.
- 2011-2013: McNair Scholars Mentor Training, WU

Peer-Reviewed Publications(*undergraduate co-author)

- S. Straub, J. Boutte, M. Fishbein, K. Thompson, Y. Cai*, A. Doherty* and J. Rusinko. Species Tree Reconstruction and Taxon Selection using Bayesian Weighted Quartets. *under revision*
- J. Kane*, H. Liu*, J. Rusinko, and K. Thompson. Phylogenetic Derivatives: A tool for local tree reconstruction. *under revision*
- S. Huebler*, R. Morris*,J. Rusinko, Y. Tao*. Constructing Semi-Directed Level-1 Phylogenetic Networks from Quarnets *under revision*
- Q. Lu*, J. Rusinko and J. Vandenbussche. Improved statistical binning techniques for species tree reconstruction. *under revision*
- J. Rusinko. Phylogenetics. Chapter 20.2 in . Handbook of Discrete and Combinatorial Mathematics, Second Edition. (2017).
- J. Parsley and J. Rusinko. CRP: Collaborative Research Project (A Mathematical Research Experience for Undergraduates). PRIMUS. **2**7.4-5 (2017).
- M. Mauhar*, J. Rusinko and Z. Vernon*. H-Representation of the Kimura-3 Polytope for the m-Claw Tree. SIAM Journal of Discrete Mathematics. **3**1.2 (2017)
- R. Davidson, J. Rusinko, Z. Vernon*, and J. Xi. Modeling the distribution of distance data in Euclidean space. Book Chapter in AMS Contemporary Mathematics Series: *Algebraic and Geometric Methods in Applied Discrete Mathematics* **6**85 (2017).
- K. Abernathy, Z. Abernathy, B. Costner, J. Rusinko, and K. Westover. Cultivating a Culture of Undergraduate Research at a Public Comprehensive University. PRIMUS. **2**7.3 (2017)
- J. Rusinko and M. McPartlon*. Species tree estimation using Neighbor Joining. Journal of Theoretical Biology. **4**14. (2016)
- R. Davidson, M. Lawhorn*, J. Rusinko., and N. Weber* Efficient Quartet Representations of Trees and Applications to Supertree and Summary Methods. IEEE/ACM Transactions on Computational Biology and Bioinformatics. (TCBB) **9**9 (2016).
- E. Moan* and J. Rusinko. Combinatorics of linked systems of quartet trees. Involve, a Journal of Mathematics. **9**.1. (2016)

- J. Coons* and J. Rusinko. A note on the path interval distance. Journal of Theoretical Biology. **3**98. (2016)
- T. Daugherty, J. Rusinko, and T. Griggs. Math Beliefs: Theory Framed and Data-driven Student Success. The Learning Assistance Review. **1**8.2. (2013)
- K. Westover, J. Rusinko, J. Hoin* and M. Neal*. Rogue taxa phenomenon: A biological companion to simulation analysis. Molecular Phylogenetics and Evolution. **6**9.1. (2013)
- J. Rusinko and H. Swan*. Agent-Based Fabric Modeling using Differential Equations. Journal of the Community of Ordinary Differential Equations Educators. (2012)
- B. Hipp and J. Rusinko. Invariant Based Quartet Puzzling. Algorithms Mol Biol. **7**.1. (2012)
- R. Webster*, J. Rusinko, M. Hayes, H. Martin*. Examining the Mathematical Sub-Symbolic Register using Cryptology. Reinvention: A Journal of Undergraduate Research. **5**.1.(2012)
- P. Dukes* and J. Rusinko. Commutation Classes of Double Wiring Diagrams. Involve: A Journal of Mathematics. **5**. 2. (2012)
- M. Neal* and J. Rusinko. A History of Elliptic Curves and their Applications. The MathMate. **3**5. 1. (2012)
- P. Dukes* and J. Rusinko. A Mathematical Origami Puzzle. Ohio Journal of School Mathematics. **6**4. (2011)
- J. Rusinko. Equivalence of Mirror Families Constructed from Toric Degenerations of Flag Varieties. Transformation Groups. **1**1. (2008)

Student Centered Research

- Mentored over 70 individual students in research projects.
- Led a collaborative research project involving over 100 students from across the country.
- Increased the number of summer research positions within and beyond the sciences.
- Redesigned funding model for student research to support all associated needs and recognize that mentoring is work.
- Conducted evidence-based research mentor training for faculty.

Professional Memberships

- National Alliance for Doctoral Studies in Mathematics
- Society of Industrial and Applied Mathematics
- Mathematical Association of America
- Society of Systemic Biologists