

MATHEMATICS/COMPUTER SCIENCE

REFEREED JOURNAL PUBLICATIONS

- Belcastro, S. M.** (2004). To include more students, don't focus on contests-prepare for mathematics! *Mathematics Teacher*, 97, 84-86.
- Belcastro, S. M.** (2004). Problem 11074: Families of dot-product snarks on orientable surfaces of low genus. *American Mathematical Monthly*, 11.
- Buot, M.**, Hosten, S., & Richards, D. (2007). Counting and locating the solutions of polynomial systems of maximum likelihood equations, II: The Behrens-Fisher problem. *Statistica Sinica*, 17, 1343-1354.
- Guo, H.** (2007). Inference on reliability in two parameter exponential stress-strength model. *Metrika*, 65(3), 261-273.
- Guo, H.**, & Krishnamoorthy, K. (2005). Comparison between two quantiles: The normal and exponential cases. *Communications in Statistics-Simulation and Computation*, 34, 243-252.
- Joshi, H. R.**, Lenhart, S., Lou, H., & Gaff, H. (2007). Harvesting control in an integrodifference population model with concave growth term. *Nonlinear Analysis: Hybrid Systems*, 1(3), 417-429.
- Gaff, H., **Joshi, H. R.**, & Lenhart, S. (2007). Optimal harvesting during an invasion of a sublethal plant pathogen. *Environment and Development Economics*, 12(5), 673-686.
- Joshi, H. R.**, Lenhart, S. L., Li, M. Y., & Wang, L. (2006). Optimal control methods applied to disease models. *Contemporary Mathematics*, 410, 187-207.
- Joshi, H. R.**, Lenhart, S., & Gaff, H. (2006). Optimal harvesting control in an integrodifference population model. *Optimal Control Applications and Methods*, 27, 61-75.
- Joshi, H. R.**, Lenhart, S., & Bergounioux, M. (2005). Solving a crop problem by an optimal control method. *Natural Resource Modeling*, 18(3), 323-346.
- Joshi, H. R.** (2004). Solving a parabolic identification problem by an optimal control method. *Houston Journal of Mathematics*, 30, 1219-1241.
- Purdy, C., **Lewandowski, G.**, Hauser, J., & Coppock, S. (2006). Establishing, sustaining and preparing future faculty program in electrical and computer engineering and computer science. *Journal on Excellence in College Teaching*, 17, 37-59.
- Sanders, K., Bouvier, D., Fincher, S., **Lewandowski, G.**, Morrison, B., Murphy, L., et al. (2005). A multi-institutional, multinational study of programming concepts using card sort data. *Expert Systems*, 22(3), 121-128.

Lewandowski, G. (2003). Using process journals to gain qualitative understanding of beginning programmers. *Journal of Computing Sciences in Colleges*, 19(1), 298-309.

Morton, D. C. (2007). The Hopf ring for bo and its connective covers. *Journal of Pure and Applied Algebra*, 210(1), 219-247.

Benjamin, A. T., Neer, J. D., **Otero, D. E.**, & Sellers, J. A. (2003). A probabilistic view of certain weighted Fibonacci sums. *Fibonacci Quarterly*, 41, 360-364.

Wagner, J. F., Speer, N. M., & **Rossa, B.** (2007). Beyond mathematical content knowledge: A mathematician's knowledge needed for teaching an inquiry-oriented differential equations course. *Journal of Mathematical Behavior*, 26(3), 246-266.

Wagner, J. F., Speer, N. M., & Rossa, B. (2007). Beyond mathematical content knowledge: A mathematician's knowledge needed for teaching an inquiry-oriented differential equations course. *Journal of Mathematical Behavior*, 26(3), 246-266.

Wagner, J. F. (2006). Transfer in pieces. *Cognition and Instruction*, 24(1), 1-71.

BOOK CONTRIBUTIONS

diSessa, A. A., & **Wagner, J. F.** (2005). What coordination has to say about transfer. In J. P. Mestre (Ed.), *Transfer of learning from a modern multidisciplinary perspective* (pp. 121-154). Greenwich, CT: Information Age Publishing.

NON-REFEREED JOURNAL PUBLICATIONS

McNally, M., **Goldweber, M.**, Fagin, B., & Klassner, F. (2006). Do LEGO Mindstorms Robots have a future in CS education? *SIGCSE Bulletin*, 38(1), 61-62.

Bergin, J., Daspersen, M. E., Kolling, M., & **Goldweber, M.** (2005). Teaching polymorphism early. *SIGCSE Bulletin*, 37(3), 342-343.

Goldweber, M., Clark, M., & Fincher, S. (2004). The relationship between CS education research and the SIGCSE community. *SIGCSE Bulletin*, 36(1), 147-148.

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Lawhead, P., Bland, C., Barnes, D., Duncan, M., **Goldweber, M.**, & Schep, M. (2003). LEGOS, Java and programming assignments for CS1. *SIGCSE Bulletin*, 3(1), 47-48.

Otero, D. E. (2006) The quadrature of the circle and Hippocrates' lunes. *Convergence*, Article 1203. Retrieved July 16, 2007 from <http://mathdl.maa.org/convergence/1/?pa=content&sa=viewDocument&noDeId=1203>

PROCEEDINGS

Bergin, J., Clancy, M., Slater, D., **Goldweber, M.**, & Levine, D. B. (2007). Day one of the objects-first first course: What to do. In *Proceedings of the 38th SIGCSE Technical Symposium on Computer Science Education* (pp. 264-265). New York: ACM Press.

Conbere, M., Erlinger, M., Davoli, R., & **Goldweber, M.** (2007). Environments for a networking laboratory. In S. Mann & N. Bridgeman (Eds.), *Proceedings of the 20th Annual Conference of the National Advisory Committee on Computing Qualifications (NACCCQ)*[Nelson, New Zealand]. Retrieved March 6, 2008, from <http://hyperdisc.unitec.ac.nz/naccq07/proceedings/papers/53.pdf>

Goldweber, M., Bergin, J., Lister, R., & McNally, M. (2006). A comparison of different approaches to the introductory programming course. In D. Tolhurst & S. Mann (Eds.), *Proceedings of the Eighth Australasian Computing Education Conference*, 52, 11-13.

Lewandowski, G., Johnson, E., & **Goldweber, M.** (2005). Fostering a creative interest in computer science. In *Proceedings of the 36th SIGCSE Technical Symposium on Computer Science Education* (pp. 535-544). New York: ACM Press.

Davoli, R., & **Goldweber, M.** (2005). Virtual square (V^2) in computer science education. In *Proceedings of the 10th annual SIGCSE Conference on Innovation and Technology in Computer Science Education (ITiCSE)* (pp.301-305). New York: ACM Press.

Goldweber, M., Davoli, R., & Morsiani, M. (2005). The Kaya OS project and the uMPS hardware simulator. In *Proceedings of the 10th annual SIGCSE Conference on Innovation and Technology in Computer Science Education (ITiCSE)* (pp.49-53). New York: ACM Press.

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Lewandowski, G., **Johnson, E.**, & Goldweber, M. (2005). Fostering a creative interest in computer science. In *Proceedings of the 36th SIGCSE Technical Symposium on Computer Science Education* (pp. 535-544). New York: ACM Press.

- Joshi, H. R.**, Gross, L. J., Lenhart, S., & Salinas, R. (2007). UBM and REU: Unique approaches at Tennessee. In J. A. Gallian (Ed.), *Proceedings of the Conference on Promoting Undergraduate Research in Mathematics* (pp. 261-265). Providence, RI: American Mathematical Society.
- Joshi, H. R.**, Lenhart, S. L., Li, M. Y., & Wang, L. (2005). Optimal control methods applied to disease model. *Proceedings of the American Mathematical Society*. Providence, RI: The Society.
- Joshi, H. R.** (2005). Optimal control of the convective velocity coefficient in a parabolic problem. In V. Lakshmikantham (Ed.), *Proceedings of the 2004 World Congress on Nonlinear Analysis* (vol. 63, pp. e1383-e1390). Melbourne, FL: Florida Institute of Technology, International Federation of Nonlinear Analysts.
- Lewandowski, G.**, Bouvier, R., McCartney, R., Sanders, K., & Simon, B. (2007). Commonsense computing (Episode 3): Concurrency and concert tickets. In *Proceedings of the 3rd International Workshop on Computer Education Research* (pp. 133-144). New York: Association for Computing Machinery (ACM).
- Chen, Y., **Lewandowski, G.**, McCartney, R., Sanders, K., & Simon, B. (2007). Commonsense computing: Using student sorting abilities to improve instruction. In *Proceedings of the 38th SIGCSE Technical Symposium on Computer Science Education* (pp. 276-280). New York: Association for Computing Machinery (ACM).
- Simon, B., Chen, Y., **Lewandowski, G.**, McCartney, R., & Sanders, K. (2006). Commonsense computing (Episode 1): Sorting. What do they know before we teach? *Proceedings of the 2nd International Workshop on Computer Education Research* (pp. 29-40). New York: Association for Computing Machinery (ACM).
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- Lewandowski, G.**, Gutschow, A., McCartney, R., Sanders, K., & Shinnery-Kennedy, D. (2005). What novice programmers don't know. In *Proceedings of the 1st International Workshop on Computer Education Research* (pp. 1-12). New York: Association for Computing Machinery (ACM).
- Purdy, C., Bishop, P., Fried, J., Kukreti, A., & **Lewandowski, G.** (2003). A model preparing future faculty program for engineering. In *Proceedings of the American Society for Engineering Education (ASEE) Annual Conference & Exposition* (session 1355). Washington, DC: ASEE.

- Parnafes, O., diSessa, A. A., **Wagner, J. F.**, Mestre, J., Thaden-Koch, T., & Sherin, B. (2006). Theory in pieces. The communal development of a theory. In S. A. Barab, K. E. Hay, & D. T. Hickey (Eds.), *Proceedings of the International Conference of the Learning Sciences* (pp. 1078-1083). Mahwah, NJ: ISLS/Erlbaum.
- Wagner, J. F.** (2003). The context sensitivity of mathematical generalizations. In N. A. Pateman, B. J. Dougherty & J. Zilliox (Eds.), *Proceedings of the Joint Annual Meeting of the International Group for the Psychology of Mathematics Education (PME) and North American Chapter of PME* (pp. 363-370). Honolulu, HI: University of Hawaii Center for Research and Development Group.

PRESENTATIONS AT ACADEMIC CONFERENCES

- Belcastro, S. M.** (2004). *Why do we knit the way we do?* Paper presented at the Miami University Conference: Mathematics and Symmetry, Oxford, OH.
- Belcastro, S. M., & Hull, T. C.** (2004). *Why are there 3^n cubes in the n -cube?* Paper presented at the American Regions Math League, Penn State University, University Park, PA.
- Belcastro, S. M.** (2004). *Using class time--how and why I developed my classroom style.* Panel participant in Project NExT (New Experiences in Teaching), Providence, RI.
- Goldweber, M., & Davoli, R.** (2007). *Educational uses for VDE.* Poster presented at the SIGCSE Technical Symposium on Computer Science Education, Covington, KY.
- Goldweber, M., Bergin, J., Lister, R., & McNally, M.** (2006). A comparison of different approaches to the introductory programming course. Panel presentation delivered at the 8th Australasian Computing Education Conference (ACE), Cairns, Queensland.
- Goldweber, M., Fagin, B., & Klassner, F.** (2006). Do LEGO Mindstorms Robots have a future in CS education? Panel presentation delivered at the 37th SIGCSE Technical Symposium on Computer Science Education, Houston, TX.
- Goldweber, M., Davoli, R., & Gardenghi, L.** (2006). UM view: View-OS implemented as a system call virtual machine. Poster presented at the 7th USENIX Symposium on Operating Systems Design and Implementation (OSDI), Seattle, WA.
- Goldweber, M., & Davoli, R.** (2006). View-OS: A process with a view. Poster presented at the EuroSys 2006, Leuven, Belgium.
- Bergin, J., Daspersen, M. E., Kolling, M., & **Goldweber, M.** (2005). Teaching polymorphism early. Panel presentation delivered at the 10th Annual Conference on Innovation and Technology in Computer Science Education (ITiCSE), Caparica, Portugal.

- Goldweber, M.**, Clark, M., Fincher, S., & Pears, A. (2004). The relationship between CS education research and the SIGCSE community. Panel presentation delivered at the 9th Annual Conference on Innovation and Technology in Computer Science Education (ITiCSE), Leeds, UK.
- Goldweber, M.**, Clark, M., & Fincher, S. (2004). The relationship between CS education research and the SIGCSE community. Panel presentation delivered at the 35th SIGCSE Technical Symposium on Computer Science Education, Norfolk, VA.
- Lawhead, P., Bland, C., Barnes, D., Duncan, M., **Goldweber, M.**, & Shep, M. (2003). LEGOS, Java and programming assignments for CS1. Paper presented at the 34th SIGCSE Technical Symposium on Computer Science Education, Reno, NV.
- Grossman, C., Herbert, S., Bellman, D., Johnson, J., **Flaspohler, D. C.**, & Kluener, C. (2005). *Behavioral patterns elicited to audible sound frequencies may be related to the interactions taking place between different manatee pairs.* Paper presented at the Marine Mammals Conference, San Diego, CA.
- Guo, H.** (2006). *Balancing cultural differences in teaching statistics.* Paper presented at the Joint Statistical Meetings, Seattle, WA.
- Guo, H.** (2006). *Statistics: A difficult subject for teaching and learning.* Paper presented at Ohio Project Next, Muskingum College, OH.
- Joshi, H. R.** (2007). *HIV education model.* Paper presented at the International Conference on Teaching Mathematics and its Application (ICTMA), Kathmandu, Nepal.
- Joshi, H. R.** (2006). *Optimal harvesting during an invasion of a sublethal plant pathogen.* Paper presented at the Society for Industrial and Applied Mathematics (SIAM) Annual Meeting, Boston, MA.
- Joshi, H. R.** (2006). *Overview of optimal control and its application to real world problems.* Paper presented at the American Mathematical Society (AMS) Section Meeting, Cincinnati, OH.
- Joshi, H. R.** (2005). *Optimal harvesting during an invasion of a sublethal plant pathogen.* Paper presented at the Southeastern-Atlantic Regional Conference on Differential Equations (SEARCDE), University of Dayton, Dayton, OH.
- Joshi, H. R.** (2005). *Harvesting control in an integro-difference population model with concave growth term.* Paper presented at the Society for Industrial and Applied Mathematics (SIAM) Annual Meeting, New Orleans, LA.
- Joshi, H. R.** (2004). *Introduction to an optimal control and its application to fisher model.* Paper presented at the American Mathematical Society (AMS) Section Meeting, Nashville, TN.
- Joshi, H. R.** (2004). *Optimal control of the convective velocity coefficient in a parabolic problem.* Paper presented at the World Congress on Nonlinear Analysis (WCNA), Orlando, FL.

- Joshi, H. R.** (2004). *Solving a crop problem by an optimal control method*. Paper presented at the Annual Meeting of the Society for Mathematical Biology (SMB), Ann Arbor, MI.
- Joshi, H. R.** (2004). *Optimal harvesting in fishery modeling*. Paper presented at the Society for Industrial and Applied Mathematics (SIAM) Annual Meeting, Portland, OR.
- Joshi, H. R.** (2004). *Optimal harvesting in fishery modeling: Preliminary report*. Paper presented at the American Mathematical Society (AMS) Section Meeting, Phoenix, AZ.
- Joshi, H. R.** (2003). *Solving a crop problem by an optimal control method*. Paper presented at the Southeastern-Atlantic Regional Conference on Differential Equations (SEARCDE), Kennesaw State University, Atlanta, GA.
- Joshi, H. R.** (2003). *Solving a crop problem by an optimal control method*. Paper presented at the Society for Industrial and Applied Mathematics (SIAM) Annual Meeting, Montreal, Canada.
- Joshi, H. R.** (2003). *Optimal harvesting in an integro-difference population model*. Paper presented at the Fourth International Conference on Dynamic Systems and Applications, Morehouse College, Atlanta, GA.
- Joshi, H. R.** (2003). *Optimal harvesting in an integro-difference population model*. Paper presented at the Joint Meeting of the Mathematical Association of America (MAA)-Southeastern Section (SE) and the Society of Industrial and Applied Mathematics (SIAM)-Southeastern Atlantic Section (SEAS), Clemson University, Clemson, SC.
- Joshi, H. R.** (2003). *Integro-difference population model*. Paper presented at the American Mathematical Society (AMS) Section Meeting, Baltimore, MD.
- Lewandowski, G.,** Bouvier, D., McCartney, R., Sanders, K., & Simon, B. (2007). *Commonsense computing (Episode 3): Concurrency and concert tickets*. Paper presented at the 3rd International Workshop on Computer Education Research, Atlanta, GA.
- Chen, Y., **Lewandowski, G.,** McCartney, R., Sanders, K., & Simon, B. (2007). *Commonsense computing: Using student sorting abilities to improve instruction*. Paper presented at the 38th SIGCSE Technical Symposium on Computer Science Education, Covington, KY.
- Chen, Y., **Lewandowski, G.,** McCartney, R., Sanders, K., & Simon, B. (2006). *What do beginning students know and what can they do?* Poster presented at the 11th Annual SIGCSE Conference on Innovation and Technology in Computer Science Education, Bologna, Italy.
- Lewandowski, G.,** Gray, S., Shende, A., & Edwards, W. (2004). *Improving programming skills by developing program comprehension*. Panel participant at the Consortium for Computing Sciences in Colleges, East, Baltimore, MD.

- Otero, D. E.** (2007). *E29, or Pell's equation in the number theory classroom*. Paper presented at the Mathematical Association of America Session on Euler in the Classroom, Joint Mathematics Meeting, New Orleans, LA.
- Otero, D. E.** (2007). *Study the masters: Using original source materials in the classroom*. Invited address delivered at Ohio NExT (New Experiences in Teaching) Workshop, Shawnee State University, Portsmouth, OH.
- Otero, D. E.** (2007). *Euler: Number theorist*. Invited address delivered at the Mathematical Association of America Ohio Section Spring Meeting, Shawnee State University, Portsmouth, OH.
- Otero, D. E.** (2006). *Redesigning a mathematics education curriculum*. Paper presented at the Mathematical Association of America Fall Section Meeting, Muskingum College, New Concord, OH.
- Otero, D. E.** (2004). *Al-Biruni's "On Shadows": A glimpse at Islamic mathematics*. Invited address presented at Wright State University, Lake Campus, Celina, OH.
- Otero, D. E.** (2004). *Al-Biruni's contributions to mathematics*. Invited address presented at Ohio State University, Columbus, OH.
- Otero, D. E.** (2004). *Al-Biruni's trigonometry: One millennium later*. Paper presented at the MAA Tri-Section Meeting and Midwest History of Mathematics Conference, University of Evansville, Evansville, IN.
- Rankin, C., Sykes, W. E., & **Pulskamp, R. J.** (2004). *Developing information fluency through general education courses*. Paper presented at the Association for Institutional Research 2004 Forum, Boston, MA.
- Wagner, J. F., Speer, N. M., & **Rossa, B.** (2006). *How much insight is enough? What studying mathematicians can reveal about knowledge needed to teach for understanding*. Paper presented at the Annual Meeting of the American Educational Research Association, San Francisco, CA.
- Rossa, B.** (2006). *Moore method teaching*. Panel presentation delivered at the Ninth Annual Legacy of R. L. Moore Conference, Austin, TX.
- Rossa, B.,** Wagner, J. F., Rasmussen, C., & Allen, K. (2005). *Developing and implementing innovative undergraduate mathematics curricula: Improving collaboration between mathematicians and mathematics educators*. Paper presented at the Conference on Research in Undergraduate Mathematics Education, Phoenix, AZ.
- Wagner, J. F.** (2007). *A transfer-in-pieces consideration of abstraction and structure in mathematical problem solving*. Invited presentation delivered at the Mathematics Education Colloquium, Michigan State University, Lansing, MI.
- Wagner, J. F.** (2007). *Microworld representations as mediators of the construction of concept projections*. Paper presented at the Annual Meeting of the American Educational Research Association, Chicago, IL.

- Wagner, J. F.** (2007). *A comparison of two mathematicians' use of an inquiry-oriented differential equations curriculum*. Paper presented at the Conference on Research in Undergraduate Mathematics Education, San Diego, CA.
- Wagner, J. F., Speer, N. M., & Rossa, B.** (2006). *How much insight is enough? What studying mathematicians can reveal about knowledge needed to teach for understanding*. Paper presented at the Annual Meeting of the American Educational Research Association, San Francisco, CA.
- Wagner, J. F.** (2006). *Transferring a theory to a new context*. Paper presented at the International Conference of the Learning Sciences, Indiana University, Bloomington, IN.
- Wagner, J. F.** (2005). *Identifying the knowledge students really use: Some methodological concerns*. Paper presented at the American Educational Research Association Meeting, Montreal, Quebec, Canada.
- Rossa, B., **Wagner, J. F.**, Rasmussen, C., & Allen, K. (2005). *Developing and implementing innovative undergraduate mathematics curricula: Improving collaboration between mathematicians and mathematics educators*. Paper presented at the Conference on Research in Undergraduate Mathematics Education, Phoenix, AZ.
- Wagner, J. F.** (2004). *Transfer: A complex knowledge system perspective*. Paper presented at the American Educational Research Association, San Diego, CA.
- Wagner, J. F.** (2003). *The context sensitivity of mathematical generalizations*. Paper presented at the International Group for the Psychology of Mathematics Education, Joint Meetings of PME and PMENA, Honolulu, HI.
- Izsak, A., & **Wagner, J. F.** (2003). *Coordination classes as a lens for understanding the development and generalization of mathematical modeling knowledge*. Paper presented at the Conference on Research in Undergraduate Mathematics Education, Scottsdale, AZ.
- Wagner, J. F.** (2003). *The microgenesis of mathematical generalizations: Examining competing theories of conceptual change and transfer*. Paper presented at the American Educational Research Association, Chicago, IL.

OTHER

- Belcastro, S. M., & Hull, T. C.** (2004). *Why are there 3^n cubes in the n -cube?* Lecture presented to the BC Calculus class, Wyoming High School, Cincinnati, OH.
- Belcastro, S. M., & Blue, J.** (2004). *Feminists critiquing science: From representation issues to philosophy*. Paper presented at the Office of Multicultural Affairs Symposium.

- Lewandowski, G.** (2006). *Commonsense computing: What do they know before we teach?* Presentation delivered at the Math & Computer Science Department Seminar, Xavier University, Cincinnati, OH.
- Otero, D. E.** (2006). *Cambridge figures: A brief history of mathematics at the University of Cambridge.* Presentation delivered at the Pi Mu Epsilon Banquet, Xavier University, Cincinnati, OH.
- Otero, D. E.** (2006). *Glue minimization algorithms in reconstructing ancient ceramics, or What I did on my spring sabbatical.* Seminar presented to the Math & Computer Science Department, Xavier University, Cincinnati, OH.
- Otero, D. E.** (2004). *George Polya's "Mathematics and Plausible Reasoning."* Readings presented at the ORESME (Ohio River Early Sources in Mathematical Exposition) Reading Group, Xavier University, Cincinnati, OH.
- Otero, D. E.** (2004). *P. A. MacMahon's the design of repeating patterns and on the thirty cubes that can be constructed with six differently coloured squares.* Readings presented at the ORESME (Ohio River Early Sources in Mathematical Exposition) Reading Group, Northern Kentucky University, Highland Heights, KY.
- Otero, D. E.** (2004). *P. A. MacMahon.* Readings presented at the ORESME (Ohio River Early Sources in Mathematical Exposition) Reading Group. Northern Kentucky University, Highland Heights, KY.
- Pulskamp, R. J.** (2006). *Leonard Euler on probability and statistics* [translation of works and annotated bibliography]. Retrieved September 21, 2007, from <http://www.cs.xu.edu/math/Sources/Euler/>
- Wagner, J. F.** (2004). *How do we know that they know? The problem of attributing knowledge to students.* Invited presentation delivered at the Pi Mu Epsilon induction ceremony, Department of Mathematics and Computer Science, Xavier University, Cincinnati, OH.