

April Kontostathis

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Education:

B.A. in Mathematics, Bloomsburg University, May 1984
M.A. in Mathematics, Duke University, May 1986
Ph.D. in Computer Science, Lehigh University, January 2004

Appointments:

September 2003 - Present

Assistant Professor, Department of Mathematics and Computer Science, Ursinus College

September 1999 - August 2001

Instructor, Department of Business and Computer Science, Montgomery County Community College

Brief Biography:

April Kontostathis currently holds an Assistant Professor position at Ursinus College in Collegeville, PA. She obtained her Ph.D. in Computer Science from Lehigh University. Her doctoral dissertation, *A Term Co-occurrence Based Framework for Understanding LSI: Theory and Practice*, developed a theoretical model for understanding LSI that is largely based on the values produced by the SVD process. Dr. Kontostathis is primary author of an article which describes this framework for understanding LSI. She is also primary author of a book chapter and a conference article which describe methods for determining the most critical values in the reduced dimensionality matrix used by LSI.

Dr. Kontostathis' primary research interest is in the theory and practice of information retrieval. She has worked extensively with undergraduate students on a variety of IR related projects. See the list of publications for details.

Courses Taught at Ursinus College:

Fall 2003	CS 271	Introduction to Computer Science
	CS 471	Database Systems
Spring 2004	CS 474	Operating Systems
	CS 272	Data Structures

Fall 2004	CS 100 CS 375 CS 471	Computer Science for the Liberal Arts Object Oriented Information Retrieval
Spring 2005	CS 173 CS 374 LS 200	Introduction to Computer Science Programming Languages Liberal Studies Seminar II
Fall 2005	CS 377 CS 477	Database Design Artificial Intelligence
Spring 2006	CS 173 CS 274 CS 478	Introduction to Computer Science Computer Architecture and Organization Parallel Algorithms
Fall 2006	CS 375 MATH 105	Object Oriented Calculus for Business and Economics
Spring 2007	CS 173 CS 374 LS 200	Introduction to Computer Science Programming Languages Liberal Studies Seminar II
Fall 2007	CS 173 CS 377 CS 477	Introduction to Computer Science Database Design Artificial Intelligence

Publications:

- Kontostathis, April. (2007) Essential Dimensions of Latent Semantic Indexing (EDLSI). *Proceedings of the 40th Annual Hawaii International Conference on System Sciences (CD-ROM)*. January 2007. Computer Society Press.
- Kontostathis, April and William M. Pottenger. (2006) A framework for understanding LSI performance. *Information Processing and Management*. Volume 42, number 1, pages 56-73.
- Waegel, Daniel B, and April Kontostathis. (2006). Using Query History to Prune Query Results. In *Proceedings of Text Mining 2006 Workshop held in conjunction with SIAM Data Mining 2006*. Bethesda, MD.
- Waegel, Daniel B, and April Kontostathis. (2006). TextMOLE: Text Mining Operations Library and Environment. In *Proceedings of the 2006 Technical Symposium on Computer Science Education*. Houston, TX.
- Kontostathis, April, William M. Pottenger, and Brian D. Davison. (2005) Identification of critical values in Latent Semantic Indexing (LSI). In T.Y. Lin, S. Ohsuga, C. Liau, X. Hu and S. Tsumoto, editors, *Foundations of Data Mining and Knowledge Discovery*, pages 333-346. Springer-Verlag.
- Indro De (April Kontostathis, Faculty Advisor). (2005) Experiments in First Story Detection. *Proceedings of The National Conference On Undergraduate Research (NCUR) 2005*.

- Holzman, Lars E., Todd A. Fisher, Leon M. Galitsky, April Kontostathis, and William M. Pottenger. (2004) A Software Infrastructure for Research in Textual Data Mining. *The International Journal on Artificial Intelligence Tools*. Volume 14, number 4, pages 829-849.
- Kontostathis, April, William M. Pottenger, and Brian D. Davison. 2004. Assessing the impact of sparsification on LSI Performance. *Proceedings of the 2004 Grace Hopper Celebration of Women in Computing Conference*. Oct 6-9, 2004. Chicago, IL.
- Kontostathis, April, Leon Galitsky, Soma Roy, William M. Pottenger and Daniel Phelps. 2003. An overview of Emerging Trends Detection (ETD). In *Survey of Text Mining: Clustering, Classification, and Retrieval*, Michael W. Berry, Ed., Springer Verlag.
- Kontostathis, April. 2003. *A Term Co-occurrence Based Framework for Understanding LSI: Theory and Practice*. PhD Thesis. Department of Computer Science and Engineering, Lehigh University.