

ABDOU YOUSSEF

Department of Computer Science
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Citizenship USA

Education

- Ph.D. in Computer Science	Princeton University	2/88
- M.A. in Computer Science	Princeton University	6/85
- B.S. in Mathematics	The Lebanese University	10/81

Academic Experience

- The George Washington University
Department of Computer Science
 - o *Department Chairman* 7/1/08-6/30/14
 - o *Graduate Director of Computer Science* 1/1/21-present
 - o *Professor* 6/99-present
 - o *Associate Professor* 9/93-6/99
 - o *Assistant Professor* 9/87-8/93
- National Institute of Standards and Technology
Intermittent Faculty Appointment, Computer Scientist 9/94-present
- The Johns Hopkins University
Visiting Faculty 9/95-6/95
- Princeton University
Research/Teaching Assistant 9/84-8/87
- The Lebanese University
Lecturer 9/81-9/82

Research Interests Machine Learning & Deep Learning, Natural Language Processing, Math Linguistics, Search and Retrieval, Data Compression, Image/Video/Signal Processing, Parallel Processing, Algorithms

Awards

- Gold Medal from the US Department of Commerce 12/2011
- Co-recipient of the 2011 Government Computer News Award for Outstanding Information Technology Achievement 2011
- Six-time winner of the *best-teacher-of-the-year award* 95, 97, 98, 99, 04, 09
The George Washington University
- Teaching/Research Assistantship Princeton University 1984-87
- A Merit Scholarship for a Ph.D. degree The Lebanese University 1983-87

Courses Taught:

Data Compression	(Graduate)
Algorithms	(Graduate)
Discrete Mathematics	(Undergraduate)
Automata and Formal Languages	(Graduate and Undergraduate)
Object-oriented Programming	(Undergraduate)
Data Structures	(Graduate and Undergraduate)
Advanced Data Structures	(Graduate)
Advanced Computer Architecture	(Advanced Graduate)
Parallel Algorithms	(Advanced Graduate)
Parallel Processing	(Advanced Graduate)
Digital Libraries	(Advanced Graduate)

Ph.D. Advisees:

Current Advisees:

- Hadel Alhawasi
- Fatimah Alshamari
- Rana Aref Salama
- John Sipple
- Ruocheng Shan

Graduated:

- Mohammed Abbadi
- Seyed Ali Ahmadi
- Reham M. Alamro
- Hamad Al-Aryani
- Moody Altamimi
- Sherif Aly
- Abdelghani Bellaachia
- Manjit Bhatia
- Jennifer Brooks
- Hoda El-Sayed
- Christine Hines
- Dong Hua
- Khalid Kaabneh
- Baha Khasawneh
- Hyunju Kim
- Zhantong Liang
- Youngser Park
- Kazem Qazanfari
- Mohammed Shatnawi
- S.R. Subramanya
- Qun Zhang

MS Theses Advisees (Graduated):

- H. Singh
- Ruocheng Shan

Selected Publications:

1. John Sipple and **Abdou Youssef**, “A general-purpose method for applying Explainable AI for Anomaly Detection Paper Number”, the 26th International Symposium on Intelligent Systems (ISMIS 2022), October 2022, Cosenza, Italy.
2. Fatimah Alshamari and **Abdou Youssef**, “Math Chunking and Function Recognition using Deep Learning”, accepted to appear in the IEEE International Conference on Machine Learning and Applications (ICMLA 2022), December, 2022, the Bahamas.
3. Zhantong Liang and **Abdou Youssef**, “Deep Sentence Denoising beyond Grammatical Error Correction”, the 2021 IEEE International Conference on Big Data, December, 2021, Orlando, FL.
4. André Greiner-Petter, Howard S. Cohl, **Abdou Youssef**, Moritz Schubotz, Avi Trost, Rajen Dey, Akiko Aizawa, and Bela Gipp, “Comparative Verification of the Digital Library of Mathematical Functions and Computer Algebra Systems”, in the 28th International Conference on Tools and Algorithms for the Construction and Analysis of Systems (TACAS), Munich, Germany, April 2022.
5. Jennifer Brooks and **Abdou Youssef** “GOT: Testing for originality in natural language generation,” Proceedings of the 1st Workshop on Natural Language Generation, Evaluation, and Metrics (GEM 2021), Association for Computational Linguistics, Aug. 2021
6. Ruocheng Shan and **Abdou Youssef**, “Towards Math Terms Disambiguation Using Machine Learning”, accepted to appear in the 14th Conference on Intelligent Computer Mathematics (CICM 2021), Timisoara, Romania, July 2021.
7. Jennifer Brooks and **Abdou Youssef**, “GOT: Testing for Originality in Natural Language Generation”, accepted to appear in the Joint Conference of the 59th Annual Meeting of the Association for Computational Linguistics and the 10th International Joint Conference on Natural Language Processing, [ACL-IJCNLP 2021](#), Bangkok, Thailand August 1-6, 2021
8. Andre Greiner-Petter, **Abdou Youssef**, Terry Ruas, Bruce R. Miller, Moritz Schubotz, Akiko Aizawa, and Bela Gipp, “Math-word Embedding in Math Search and semantic extraction. *Scientometrics* (2020).
9. Zhantong Liang and **Abdou Youssef**, “Performance Benchmarking of Automated Sentence Denoising using Deep Learning”, 2020 IEEE International Conference on Big Data (Big Data), December 2020.

10. Jennifer Brooks and **Abdou Youssef**, “Discriminative Pattern Mining for Natural Language Metaphor Generation”, 2020 IEEE International Conference on Big Data (Big Data), December 2020.
11. Fatimah Alshamari and **Abdou Youssef**, A Study into Math Document Classification Using Deep Learning”, 8th International Conference on Computational Science and Engineering (CSE 2020), Dubai, UAE, December 2020.
12. **Abdou Youssef** and Bruce Miller, “A Contextual and Labeled Math-Dataset Derived from NIST's DLMP”, the 13th Conference on Intelligent Computer Mathematics (CICM) 2020, Bertinoro, Forli, Italy (virtual), July 2020.
13. Jennifer Brooks and **Abdou Youssef**, “Metaphor Detection using Ensembles of Bidirectional Recurrent Neural Networks”, accepted to appear in FigLang 2020: ACL 2020 Workshop on Figurative Language Processing, Metaphor Shared Task, Seattle, WA, USA, July 2020.
14. Philipp Scharpf, Moritz Schubotz, **Abdou Youssef**, Felix Hamborg , Norman Meuschke, and Bela Gipp, “Classification and Clustering of arXiv Documents, Sections, and Abstracts, Comparing Encodings of Natural and Mathematical Language”, to appear in ACM/IEEE Joint Conference on Digital Libraries (JCDL 2020), Wuhan, China (virtual), August, 2020.
15. Christine Hines and **Abdou Youssef**, “Class Balancing for Fraud Detection in Point Of Sale Systems”, the IEEE International Conference Big Data 2019 Conference, Workshop on Big Data Analytics for Cyber Intelligence and Defense, Los Angeles, CA, December 2019.
16. Reham Alamro and **Abdou Youssef**, “Transpose-based Integrated Data Reduction Techniques for Speeding up Classifier Training”, the IEEE International Conference Big Data 2019 Conference, Workshop on Energy-Efficient Machine Learning and Big Data Analytics, Los Angeles, CA, December 2019.
17. Reham Alamro and **Abdou Youssef**, “Effects of Data Reduction Methods and Rates on Classifiers”, the IEEE International Conference Big Data 2019 Conference, Special Session on Intelligent Data Mining, Los Angeles, CA, December 2019.
18. Kazem Qazanfari and **Abdou Youssef**, “Word Embedding by Combining Resources and Integrating Techniques”, the 18th IEEE International Conference on Machine Learning and Applications (ICMLA 2019), Boca Raton, Florida, December 16-19, 2019.
19. Reham Alamro and **Abdou Youssef**, “Effects of Integrated Instance-Random-Sampling and Feature Reduction on Classifiers Performance and Training Speed”, 31st International Conference on Tools with Artificial Intelligence (ICTAI 2019), Portland, Oregon, November 2019.
20. Arthi Krishna, Ye Jin, Christine Foster, **Abdou Youssef**, Greg Gabel and Britt Hanley, “Query Expansion for Patent Searching using Word Embedding and Professional Crowdsourcing”, AAAI FSS-19: Artificial Intelligence in Government and Public Sector, Arlington, Virginia, USA, November 7-8, 2019.

21. **Abdou Youssef** and Bruce Miller, “Explorations into the Use of Word Embedding in Math Search and Math Semantics”, the 12th Conference on Intelligent Computer Mathematics (CICM) 2019, Prague, the Czech Republic, July 2019.
22. Reham Alamro and **Abdou Youssef**, “Data Reduction Effects on Classification Accuracy and Training Time”, the 15th International Conference on Machine Learning and Data Mining (MLDM), New York, July 2019.
23. Kazem Qazanfari and **Abdou Youssef**, “Improving document classification performance by combining resources and integrating word embedding techniques”, the 19th Industrial Conference on Data Mining (ICDM), New York, July 2019.
24. Rana Aref Salama, **Abdou Youssef**, and Aly Fahmy, “Morphological Word Embedding for Arabic”, *Procedia Computer Science journal*, volume 142, pp. 83-93, 2018.
25. Reham M. Alamro and **Abdou Youssef**, "Impact of data reduction techniques on classification," in 2018 International Conference on Computational Science and Computational Intelligence (CSCI), pp. 1070-1075, IEEE, December, 2018.
26. **Abdou Youssef** and Bruce Miller, “Deep Learning for Math Knowledge Processing,” the 11th Conference on Intelligent Computer Mathematics (CICM) 2018, Hagenberg, Austria, August 2018.
27. Kazem Qazanfari and **Abdou Youssef**, “Document Clustering Using Local and Universal Knowledge,” the 14th International Conference on Machine Learning and Data Mining (MLDM), New York, July 2018.
28. Christine Hines and **Abdou Youssef**, “Machine Learning Applied to Point-Of-Sale Fraud Detection,” the 14th International Conference on Machine Learning and Data Mining (MLDM), New York, July 2018.
29. Christine Hines and **Abdou Youssef**, "Machine Learning Applied to Rotating Check Fraud Detection", 1st International Conference on Data Intelligence and Security, South Padre Island, Texas, April 8 -10, 2018
30. Kazem Qazanfari and **Abdou Youssef**, “Contextual Feature Weighting using Knowledge beyond the Repository Knowledge”, the ICCDA 2018.
31. Kazem Qazanfari, **Abdou Youssef**, Kai Keane, and Joseph Nelson, “A novel recommendation system to match college events and groups to students,” AIAAT 2017, Hawaii Aug.30-Sept.2, 2017, pp 1-15.
32. **Abdou Youssef**, “Part-of-Math Tagging and Applications,” the 10th Conference on Intelligent Computer Mathematics (CICM) 2017, Edingburgh, Scotland, July, 2017.
33. H. Cohl, M. Schubotz, **A. Youssef**, A. Greiner-Petter, J. Gerhard, B. V. Saunders, M. A. McClain, J. Bang, and K. Chen, K. “Semantic preserving bijective mappings of mathematical formulae between document preparation systems and computer algebra systems,” the 10th Conference on Intelligent Computer Mathematics (CICM) 2017, Edingburgh, Scotland, July, 2017.

34. Moritz Schubotz, Alexey Grigorev, Marcus Leich, Howard S. Cohl, Norman Meuschke, Bela Gippx, Abdou Youssef, and Volker Markl, "[Semantification of Identifiers in Mathematics for Better Math Information Retrieval](#)", [The 39th Annual ACM SIGIR Conference \(SIGIR 2016\)](#), July 17-21, 2016, Pisa, Italy.
33. Moritz Schubotz, Abdou Youssef, Volker Markl, Howard S. Cohl, "[Challenges of Mathematical Information Retrieval in the NTCIR-11 Math Wikipedia Task](#)", [The 38th Annual ACM SIGIR Conference \(SIGIR 2015\)](#), August 9-13, 2015, Santiago, Chile.
34. Qun Zhang and Abdou Youssef, "[Performance Evaluation and Optimization of Math-Similarity Search](#)", [Conference on Intelligent Computer Mathematics \(CICM 2015\)](#), July 13-15, 2015, Washington, DC.
35. Moritz Schubotz, Abdou Youssef, Volker Markl, Howard Cohl, and Jimmy Li, "[Evaluation of Similarity-Measure Factors for Formulae based on the NTCIR-11 Math Task](#)", [The 11th NTCIR Conference and Evaluation of Information Access Technologies](#), Dec. 9-12, 2014, Tokyo, Japan.
36. Qun Zhang and Abdou Youssef, "[Semantics-Sensitive Math-Similarity Search](#)", the [Conferences on Intelligent Computer Mathematics \(CICM 2014\)](#), July, 2014, Coimbra, Portugal.
37. Youngser Park, Carey E. Priebe, and Abdou Youssef, "[Anomaly Detection in Time Series of Graphs using Fusion of Graph Invariants](#)", the [IEEE Journal of Selected Topics in Signal Processing](#), 2013.
38. Xiaofan Feng, Abdou Youssef, and Sithu Sudarsan, "Robust Template Identification of Scanned Documents", the 4th International Conference on Knowledge Discovery and Information Retrieval, pp. 103-110, October 2012, Barcelona, Spain.
39. Youngser Park, Carey Priebe, Abdou Youssef, "[Anomaly Detection using Fusion of Graph Invariants on a Time Series of Graphs](#)", [Joint Statistical Meetings, Vancouver, BC, Canada, July 31 - August 5, 2010](#).
40. Youngser Park, Carey Priebe, Dave Marchette, Abdou Youssef, "[Anomaly Detection using Scan Statistics on Time Series Hypergraphs](#)", [Workshop on Link Analysis, Counterterrorism and Security \(LACTS\) 2009, SIAM International Conference on Data Mining \(SDM 2009\)](#), April 30 - May 2, 2009, Sparks, NV.
41. Dong Hua, Dechang Chen, Fang Liu, and Abdou Youssef, "A Bayesian Approach to Multistage Fitting of the Variation of the Skeletal Age Features", [Journal of Biomedicine and Biotechnology](#), Volume 2009 (2009), Article ID 623853, 7 pages.
42. Seyed Ali Ahmadi and Abdou Youssef, "[Lexical Error Compensation in Handwritten-based Mathematical Information Retrieval](#)," [Towards Digital Mathematics Library \(DML 2008\)](#), July 27th, 2008, Birmingham, UK, part of the [7th International Conference on Mathematical Knowledge Management, 2008](#), pp. 43-54.

43. Abdou Youssef, "[Relevance Ranking and Hit Description in Math Search](#)," [Journal of Mathematics in Computer Science](#), V. 2, 2008, p. 333-353.
44. Bruce Miller and Abdou Youssef, "[Augmenting Presentation MathML for Search](#)," [Proceedings of the 7th Mathematical Knowledge Management conference, UK, July 2008](#). Also in Springer, the [Lecture Notes in Computer Science series](#), Intelligent Computer Mathematics, Volume 5144, pp 536-542, 2008.
45. Abdou Youssef, "[Methods of Relevance Ranking and Hit-content Generation in Math Search](#)", [The 6th Mathematical Knowledge Management Conference, Hagenberg, Austria, June 27-30, 2007](#).
46. Moody Altamimi and Abdou Youssef, "[Wildcards in Math Search, Implementation Issues](#)," [19th International Conference on Computer Applications in Industry and Engineering, November 7-9, 2007, San Francisco, California USA](#).
47. Mohammed Shatnawi and Abdou Youssef, "[Equivalence Detection Using Parse-tree Normalization for Math Search](#)," [The Second International Conference on Digital Information Management \(ICDIM'07\), October 28-31, 2007](#).
48. Abdou Youssef (Jointly with Moody Al-Tamimi), "[A more canonical form of content MathML to facilitate math search](#)", [The 2007 Extreme Markup Languages conference, Montréal, Canada, August 7-10, 2007](#).
49. Abdou Youssef (Jointly with Moody Al-Tamimi), "[An Extensive Math Query Language](#)", [The ISCA 16th International Conference on Software Engineering and Data Engineering \(SEDE-2007\), Las Vegas, Nevada, July 9-11, 2007](#).
50. Abdou Youssef, "[Roles of Math Search in Mathematics](#)," [Spring-Verlag volume the Lecture Notes in Artificial Intelligence series. Also, an invited paper, the 5th Int'l Conf. on Mathematical Knowledge Management, August, 2006, UK, pp. 2-16](#).
51. Abdou Youssef and Mohammed Shatnawi, "[Math Search with Equivalence Detection Using Parse-tree Normalization](#)", [The 4th International Conference on Computer Science and Information Technology, April 2006, Amman, Jordan](#).
52. Dong Hua and Abdou Youssef, "On Algorithmic Implementation of Local Dependence Modeling in Latent Structure Models." [Journal Engineering Letters, special issue, 2006](#).
53. Abdou Youssef (jointly with Hamad Al-Aryani), "A Novel Audio Watermarking Technique Based on Low Frequency Components", [7th IEEE International Symposium on Multimedia \(ISM'05\) pp. 668-673, Dec 12-14, 2005, Irvine, California](#).
54. Abdou Youssef (jointly with Dong Hua and Dechang Chen), "[Identifying genes with the concept of customization](#)," [2005 IEEE Computer Society Conf. on Computer Vision and Pattern Recognition \(CVPR'05\), Workshop on Bioinformatics, Vol 03, pp. 144, San Diego, June 2005](#).

55. Abdou Youssef, "[Search of Mathematical Contents: Issues And Methods,](#)"the ISCA 14th Int'l Conf. on Intelligent and Adaptive Systems and Software Engineering (IASSE-2005), July 20-22, 2005, Toronto, Canada.
56. Remigius Onyshczak and Abdou Youssef, "Fingerprint Image Compression and the Wavelet Scalar Quantization Specification", a book chapter in a Fingerprint Imaging Technologies, Springer-Verlag, 2004, pp. 385-413, eds: Nalini Ratha and Ruud Bolle.
57. Abdou Youssef (Jointly with Dong Hua, Dechang Chen, and Xiuzhen Cheng), "Latent Structure Models for the Analysis of Gene Expression Data", the IEEE Computer Society Conference on Bioinformatics, pp. 496-499, 2003. Stanford, California.
58. Hyunju Kim and Abdou Youssef, "[Bit error recovery in internet facsimile without retransmission](#)", the Visual Communications and Image Processing 2003 Conference, July 8-11, 2003, Switzerland.
59. Hyunju Kim and Abdou Youssef, "[Bit Error Recovery in MMR Coded Bitstreams Using Error Detection Points](#)", proceedings of the 2003 International Conference on Imaging Science, Systems, and Technology, June 2003, Las Vegas, Nevada.
60. Hyunju Kim and Abdou Youssef, "[Bit Error Detection and Recovery for X2D MMR Coded Bitstreams](#)", proceedings of the IEEE International Conference on Image Processing, September 14-17, 2003, Barcelona, Spain.
61. Hyunju Kim and Abdou Youssef, "[Interactive Error Recovery in Facsimile without Retransmission](#)", the 1st IEEE Conference on Information Technology ITCC 2003, Las Vegas, Nevada, USA, April 2003.
62. Hyunju Kim and Abdou Youssef, "[Error Recovery in Facsimile without Retransmission](#)", the ISCA 18th International Conf. on Computers and their Applications, Honolulu, Hawaii, 3/2003.
63. Abdou Youssef, "Analysis of the Effects of Errors on Multiresolution JBIG Decoding of Binary, Grayscale and Color Images", the 2002 International Conference on Imaging Science, Systems, and Technology (CISST'2002), June 25-28, 2002, Las Vegas, Nevada.
64. Sherif Aly and Abdou Youssef, "[Synchronization-Sensitive Frame Estimation: Video Quality Enhancement](#)," The International Journal of Multimedia Tools and Applications, 2002.
65. Abdou Youssef (Jointly with Bruce Miller), "[Technical Aspects of the Digital Library of Mathematical Functions](#),"Annals of Mathematics and Artificial Intelligence, Volume 38, pp. 121--136, 2003. Also in First International Workshop on Mathematical Knowledge Management, Schloss Hagenberg, Austria, Sept. 24-26, 2001.
66. Abdou Youssef and Alan Ratner, "Error Correction in HDLC without Retransmission,"the 2001 International Conference on Imaging Science, Systems, and Technology (CISST'2001), June 25-28, 2001, Las Vegas, Nevada.

67. Abdou Youssef and Anastase Nakassis, "Metrics for Visual Data," the 2001 International Conference on Imaging Science, Systems, and Technology (CISST'2001), June 25-28, 2001, Las Vegas, Nevada.
68. Khalid Kaabneh and Abdou Youssef, "[Muteness Based Audio Watermarking Technique](#)", The 21st International Conference on Distributed Computing Systems, Phoenix/Mesa, Arizona, USA, April 16-19, 2001.
69. Sherif Aly and Abdou Youssef, "Real-Time Motion-Based Frame Estimation in Video Lossy Transmission", Proceedings of the 2001 Symposium on Applications and the Internet (SAINT-2001), San Diego, California, January 8-12, 2001.
70. Sherif Aly and Abdou Youssef, "Synchronization Sensitive Frame Estimation Techniques for Audio-Video Synchronization Restoration," the 2000 International Conference on Artificial Intelligence, Las Vegas, June 26-29, 2000.
71. Sherif Aly and Abdou Youssef, "Synchronization-Sensitive Frame Estimation Techniques for Audio-Video Synchronization Restoration," Proceedings of the Internet Computing 2000 conference, Las Vegas, Nevada, June 25-28, 2000.
72. Sherif Aly and Abdou Youssef, "Frame Estimation for Restoring Audio-Video Synchronization using Parallelized Quadratic Frame Interpolation," Proceedings of the PDPTA 2000 conference, Las Vegas, Nevada, June 25-28, 2000.
73. Sherif Aly and Abdou Youssef, "Synchronization-Sensitive Motion and Interpolation-Based Frame Estimation in Video Lossy Transmission," Proceedings of the SPIE Photonics East Multimedia Systems and Applications III Conference, 2-8 November, Boston, Massachusetts, 2000.
74. Sherif Aly and Abdou Youssef, "Frame Estimation for Restoring Audio-Video Synchronization Using Parallelized Quadratic Frame Interpolation," The 2000 International Conference on Parallel and Distributed Processing Techniques and Application, Las Vegas, June 26-29, 2000.
75. Abdelghani Bellaachia and **Abdou Youssef**, "Communication capabilities of product networks," *The Telecommunications Systems*, Spring 2000, pp. 119-133.
76. Abdou Youssef (jointly with S. R. Subramanya), "Evaluation of DCT Coding of Images under various Block sizes, Coefficient selections, and Quantizers", International Conference on Internet and Multimedia Systems and Applications, Bahamas, October 1999.
77. Abdou Youssef (Jointly with S. R. Subramanya, B. Narahari, and R. Simha), "Use of Transforms for Indexing in Audio Databases", International Conference on Computational Intelligence and Multimedia Applications, New Delhi, India, September 1999, pp. 278-284.
78. Mohammad Abbad and Abdou Youssef, "[Block DCT-Based Indexing of Image Databases](#)," [International Conference on Information Systems Analysis and Synthesis, Orlando, Florida, July 1999](#).

79. Baha Khasawneh and Abdou Youssef, "Non-uniform Error Protection for Compressed Wavelet Transformed Images," IEEE Int'l Conf. on Multimedia Computing and Systems, Orlando, 7/99.
80. Abdou Youssef (jointly with S. R. Subramanya, I. Ersoy), "Segmentation of Audio Data Based on the Binary Images of the Audio Samples," Int'l Conf. on Intelligent Systems, Denver, June 1999.
81. Abdou Youssef, ["Image Downsampling and Upsampling Methods," International Conference on Imaging, Science, Systems, and Technology CISST '99, Las Vegas, pp. 132-138, June 1999.](#)
82. Abdou Youssef (jointly with S. R. Subramanya, Bhagirath Narahari, and R. Simha), "Automated Classification of Audio Data and Retrieval Based on Audio Classes," the ISCA 14th Int'l Conf. on Computers and their Applications, Cancun, Mexico, pp. 141-145, April, 1999.
83. Abdou Youssef (Jointly with S. R. Subramanya, N. Alexandridis, P. Piamsa-nga, and S. Srakaew), "A Distributed Algorithm for Content-Based Image Retrievals Using Image Clusters," Int'l Conference on Management of Data, Hydersbad, india, December 1998.
84. S.R. Subramanya, S. Srakaew, Abdou Youssef, and N. Alexandridis, ["A Scheme for Automated Classification of Images," ISCA CAINE98 Conference, Las Vegas, Nevada, November 1998.](#)
85. S.R.Subramanya and Abdou Youssef, ["Performance Evaluation of Lossy DPCM Coding of Images using Different Predictors," ISCA CAINE98 Conference, Las Vegas, Nevada, November 1998.](#)
86. S.R.Subramanya and Abdou Youssef, ["Wavelet-based Indexing of Audio Data in Audio / Multimedia Databases", 4th Int'l. Workshop on Multimedia DBMS, Dayton, Ohio, Aug. 1998.](#)
87. M. Abbadi and Abdou Youssef "Indexing and Searching of image Data in Multimedia Databases," Int'l. Conf. on Information Systems Analysis and Synthesis, Orlando, Florida, 7/98.
88. Abdou Youssef, ["Parallel Algorithms for Entropy-coding Techniques," the Second European Parallel and Distributed Systems Conference \(Euro-PDS98\), Vienna, Austria, July 1998, pp. 313-318.](#)
89. Abdou Youssef, ["An Efficient Parallel Algorithm for Multi-indexed Recurrence Relations with Applications to Compression of Multidimensional Signals," the Second European Parallel and Distributed Systems Conference \(Euro-PDS98\), Vienna, Austria, July 1998.](#)
90. S.R. Subramanya, S. Srakaew, Abdou Youssef, and N. Alexandridis, ["Content-Based Retrieval of Images Using Pre-determined Image Classes", Int'l. Conference on Information Systems Analysis and Synthesis, Orlando, Florida, July 1998, pp.192--194.](#)

91. S. R. Subramanya, P. Piamsa-nga, N. Alexandridis, and Abdou Youssef, "[A Scheme for Content-based Image Retrievals for Unrestricted Query Formats](#)," [International Conf. on Imaging, Science, Systems, and Technology, Las Vegas, Nevada, pp. 323-330, July 1998.](#)
92. Abdou Youssef, "[Parallel Algorithms for Entropy-coding Techniques](#)," the [Second European Parallel and Distributed Systems Conference \(Euro-PDS98\), Vienna, Austria, July 1998.](#)
93. Abdou Youssef, "[An Efficient Parallel Algorithm for Multi-indexed Recurrence Relations with Applications to Compression of Multidimensional Signals](#)," [Euro-PDS98, Austria, 7/98.](#)
94. Abdou Youssef and Anastase Nakassis, "[Moment-preserving Modeling with Image Applications](#)," [Int'l Conf. on Imaging, Science, Systems, and Technology, Las Vegas, pp. 323-330, 7/98.](#)
95. Sabrina Sowers and Abdou Youssef, "Testing Digital Watermark Resistance To Destruction," the [Workshop on Information Hiding , Portland, Oregon, April 1998.](#)
96. Manjit Bhatia and Abdou Youssef, "Performance Analysis and Fault Tolerance of Randomized Routing on Clos Networks," [Telecommunication Systems Journal, Vol. 10, pp. 157-173, 1998.](#)
97. Abdou Youssef, "Analysis and Comparison of Various Image Downsampling and Upsampling Methods" [The Data Compression Conference, Snowbird, Utah, March 1998.](#)
98. Abdou Youssef, "Parallel Algorithms for Multi-indexed Recurrence Relations with Applications to DPCM Image Compression" [The Data Compression Conference, Snowbird, Utah, March 1998.](#)
99. Abdou Youssef "Optimal Pipewiring of Hypercubes, Multidimensional Tori and Multistage Interconnection Networks," the [6th Telecommunications System Conference, Symposium on High Performance Computing & Interconnection Networks , Nashville, TN, March 1998.](#)
100. S.R. Subramanya and Abdou Youssef, "Parallel Computation of Autocorrelation Matrices on a Limited Number of Processors," the [ISCA 13th International Conference on Computers and Their Applications, Honolulu, Hawaii, March 1998.](#)
101. Hoda El-Sayed and Abdou Youssef, "The r-Truncated Benes Networks and their Randomized Routing Algorithms," the [1997 International Conference on Parallel and Distributed Systems, Seoul, Korea, December 1997.](#)
102. Hoda El-Sayed and Abdou Youssef, "Randomized Routing and the r-Truncated Benes Network," the [10th International Conference on Parallel and Distributed Computing, pp. 76-80, New Orleans, Louisiana, October 1997.](#)
103. S. R. Subramanya, R. Simha, Bhagirath Narahari, and Abdou Youssef, "[Transform-Based Indexing of Audio data for Multimedia Databases](#)," [Int'l Conf. on Multimedia Computing and Systems, Ottawa, Canada, June 1997.](#)

104. Abdou Youssef, "Selection of Good Biorthogonal Wavelets for Data Compression," Int'l Conf. on Imaging, Science, Systems, and Technology, Las Vegas, pp. 323-330, 6/1997.
105. S. R. Subramanya and Abdou Youssef, "[Parallel Algorithms for Indexing and Retrieval in Audio Databases](#)", ISCA 97, pp. 611-618.
106. Abdou Youssef, "Error Resiliency Issues in Wavelet Compression," Data Compression Conference, Snowbird, Utah, March 1997.
107. Abdou Youssef, "[Pipewiring: an Intra-link Pipelining Technique for Faster Clocks and Communication in Parallel Systems](#)," 11th International Conference on Mathematical and Computer Modelling and Scientific Computing, March 1997, Washington, DC.
108. Abdou Youssef and Hoda El-Sayed, "[Optimization of Randomized Routing on Benes Networks](#)," 11th International Conference on Mathematical and Computer Modelling and Scientific Computing, March 1997, Washington, DC.
109. Dong Hua and **Abdou Youssef**, "Single Digit Region of Interest (SDROI) Extraction by Reducing the Tissue Influence," the *Journal of Optimization Methods and Software*, special issue, 2006, Kluwer Academic Publishers.
110. Manjit Bhatia and Abdou Youssef, "Performance Analysis and Fault Tolerance of Randomized Routing on Clos Networks," 6th Symposium of the frontiers of Massively Parallel Computation, October 1996, Annapolis, Maryland.
111. Harmel Singh and Abdou Youssef, "Mapping and Scheduling Heterogeneous Task Graphs Using Genetic Algorithms," Fifth Workshop on Heterogeneous Computing at the Tenth International Parallel Processing Symposium, Honolulu, Hawaii, April 1996.
112. Abdelghani Bellaachia and Abdou Youssef, "Broadcasting in Banyan-Hypercubes and Cross-Cubes," International Journal of Computers and their Applications, Vol. II, No. 1, pp. 12--18, April 1995.
113. Abdelghani Bellaachia and Abdou Youssef, "Personalized Broadcasting in Banyan Hypercubes", Proceedings of the IEEE/ACM 4th Int'l Conference on Computer Communications and Networks, Las Vegas, Nevada, pp. 470-474, Sept. 20-23, 1995.
114. Abdou Youssef, "Translation of Serial Recursive Codes to Parallel SIMD Codes," Proc. of the 3rd Conference on Parallel Architecture and Compilation Techniques, Limassol, Cyprus, pp. 254--263, July 1995.
115. Abdelghani Bellaachia and Abdou Youssef, "A Unified Theory for a Traffic Analysis in Product Network," Proceedings of the 9th International Parallel processing Symposium, Santa Barbara, California, April 1995.
116. Abdou Youssef, "Design and Analysis of Product Networks," the 5th Symp. on the Frontiers of Massively Parallel Computation, McLean, Virginia, pp. 512--528, Feb. 1995.

117. Abdelghani Bellaachia and Abdou Youssef, "New Dynamic Partitioning Strategies for Hypercube Computers," Seventh International Conference on Parallel and Distributed Computing Systems, October 1994.
118. Bhagirath Narahari, Abdou Youssef, and H.-A. Choi, "Matching and Scheduling in a Generalized Optimal Selection Theory," Third Workshop on Heterogeneous Computing at the Eighth International Parallel Processing Symposium, Cancun, Mexico, pp. 3--8, April 1994.
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