

BIOGRAPHICAL SKETCH

Provide the following information for the key personnel in the order listed for Form Page 2.
Follow the sample format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME		POSITION TITLE	
Lauria, Mario		Assistant Professor	
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
Universita' di Napoli "Federico II", Naples, Italy	Laurea	1992	Electrical Engineering
University of Illinois, Urbana-Champaign	M.S.	1996	Computer Science
Universita' di Napoli "Federico II", Naples, Italy	PhD	1997	Computer Science

A. Positions and Honors.**Positions and Employment**

1993 - 1994 Computer Systems Analysts, Ansaldo Trasporti, Naples, Italy
 1996 - 1997 Lecturer, College of Engineering, Universita' di Napoli, Naples, Italy
 1997 – 1998 Postdoctoral Fellow, Department of Computer Science, Univ. of Illinois at Urbana-Champaign
 1998 - 1999 Postdoctoral Associate, Department of Computer Science and Engineering, Univ. of California, San Diego
 2000 Visiting scholar, Department of Computer Science, Vrije Universiteit, Amsterdam
 2000-present Assistant Professor, Department of Computer and Inf. Science, The Ohio State University
 2001-present Assistant Professor (Adjunct), Department of Biomedical Informatics, The Ohio State University

Honors

1994 Fulbright scholarship
 1997 NATO Advanced Science Fellowship

B. Selected peer-reviewed publications (in chronological order).**Journals**

- M. Lauria, A. Chien. "MPI-FM: High Performance MPI on Workstation Clusters", Journal of Parallel and Distributed Computing, Vol 40, No. 1, January 1997.
 - A. Chien, M. Lauria, R. Pennington, M. Showerman, G. Iannello, M. Buchanan, K. Connelly, L. Giannini, G. Koenig, S. Krishnamurthy, Q. Liu, S. Pakin, G. Sampemane "Design and Evaluation of an HPVM-based Windows NT Supercomputer", The International Journal of High-Performance Computing Applications, Vol. 13, No. 3, Fall 1999, pp. 201-219
 - M. Lauria, S. Pakin, A. Chien "Efficient Layering for High Speed Communication: the MPI over Fast Messages (FM) Experience", Cluster Computing, 2 (1999), pp. 107-116.
 - M. Bernaschi, G. Iannello, M. Lauria, "Efficient Implementation of Reduce-Scatter in MPI", Journal of System Architecture, Vol. 49, No. 3, August 2003, pp. 89-108
 - Yuheng Li, M. Lauria, R. Bundschuh, "Using Hybrid Alignment for Iterative Sequence Database Searches", Concurrency and Computation: Practice and Experience, in press

Conferences

- S. Pakin, M. Lauria, A. Chien "High Performance Messaging on Workstations: Illinois Fast Messages (FM) for Myrinet" Supercomputing '95
- G. Iannello, M. Lauria, S. Mercolino, "LogP Performance Characterization of Fast Messages atop Myrinet", 6th EUROMICRO Workshop on Parallel and Distributed Processing (PDP98), January, 1998.
- M. Lauria, S. Pakin, A. Chien "Efficient Layering for High Speed Communication: Fast Messages 2.x", 7th IEEE International Symposium on High Performance Distributed Computing (HPDC-7), Chicago, July 98.
- M. Bernaschi, G. Iannello, M. Lauria, "Efficient Implementation of Reduce-Scatter in MPI", 10th EUROMICRO Workshop on Parallel and Distributed Processing (PDP2002), January 2002.
- K. Bell, A. Chien, M. Lauria, "A High-Performance Cluster Storage Server", HPDC-11, Edinburgh, July 2002
- E. Nallipogu, F. Ozguner, M. Lauria, "Improving the Throughput of Remote Storage Access through pipelining", 3rd Int. Workshop on Grid Computing (GRID 2002), Baltimore, November, 2002.
- Yuheng Li, M. Lauria, R. Bundschuh, "Using Hybrid Alignment for Iterative Sequence Database Searches", 2nd IEEE International Workshop on High Performance Computational Biology (HiCOMB 2003), April 22, 2003, Nice, France.
- R. Sundaresan, T. Kurc, M. Lauria, S. Parthasarathy, and J. Saltz, "A Slacker Coherence Protocol for Pull-based Monitoring of On-line Data Sources", CCGrid 2003, May 2003, Tokyo, Japan.
- R. Sundaresan, M. Lauria, T. Kurc, and J. Saltz, "Adaptive polling of Grid resource monitors using a slacker coherence model", HPDC-12, Seattle, June 2003
- M. Pillai, M. Lauria, "A High Performance Redundancy Scheme for Cluster File Systems", IEEE Conference on Cluster Computing (Cluster 2003), December 2003, Hong Kong
- Daolong Wang, Mario Lauria, Bo Yuan, Fred A. Wright, "Mega Weaver: A Simple Iterative Approach for BAC Consensus Assembly", Proceedings of the Second Asia-Pacific Bioinformatics Conference (APBC2004), Dunedin, New Zealand, January 2004, CRPIT, Vol 29. Chen, Y.-P. P., Ed. Australian Computer Society.
- A.J. Chakravarti, G. Baumgartner, M. Lauria. The Organic Grid: Self-Organizing Computation on a Peer-to-Peer Network, International Conference on Autonomic Computing (ICAC '04), New York, NY, 17-18 May 2004.

Proceedings (Editor)

- Falsafi, B.; Lauria, M., (Eds.), "Proceedings of CANPC'00", published in the Lecture Notes in Computer Science series, Springer-Verlag, Vol 1797, ISBN 3-540-67879-4, 2000
- Sivasubramaniam, A.; Lauria, M., (Eds.), "Proceedings of CANPC'99", published in the Lecture Notes in Computer Science series, Springer-Verlag, Vol 1602, ISBN 3-540-65915-3, 1999

C. Research Support

Ongoing Research Support

Sponsor: National Science Foundation, award #DBI-0317335,
Title: Iterative Hybrid alignment: improving the sensitivity of biological databases searches
PIs: Ralf Bundschuh (PI), Mario Lauria (co-PI)
Amount: \$350,141
Period: 9/01/03-8/31/06

This study investigates how to improve the sensitivity of PSI-BLAST using the hybrid algorithm for sequence alignment.