

**Dr. Swarna Reddy**

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**Education**

Byelorussian State University, Minsk, Byelorussia  
Ph.D. Submodular function optimization modeling and algorithms. (Mathematical Cybernetics). Department of Applied Mathematics and Computer science. July, 1994

Sri Padmavathi Mahila University , Tirupathi, Andhra Pradesh, India  
M.S. in Applied Mathematics. July, 1986

Additional graduate course work at: Department of Computer science, SUNY at Albany, 1999-2000, and Department of Mathematics, University of Montana, Missoula, 1998-1999.

European Economic University, Minsk, Belarus, Post Doctoral Research Fellow, 1995-1996, Mathematical Modeling for Problems in Business and Economics.

**Professional Experience**

**Adjunct Research Associate Professor, 2003-2005.** Dept. of Mathematical Sciences, UM, Missoula, MT. Scientific computing related the analysis of high-dimensional categorical data. Funded by Joint Venture Grant Agreement 03-JV-11222048-151.

**Research Associate, 2001-2002.** Numerical Terradynamics Simulation Group, School of Forestry, UM, Missoula, MT. Statistical Analysis for Problems Related Atmospheric Cycles and Global Warming.

**Adjunct Instructor, 2002-2003.** Dept. of Mathematical Sciences, UM, Missoula, MT. Taught Introduction to Probability and Linear Mathematics (Undergraduate level).

**Teaching Assistant, 1999-2000.** Dept. of Computer Science, SUNY Albany. Teaching Assistant for Algorithms and Data structures, Numerical methods and Automata Theory.

**Teaching Assistant, 1998-1999.** Dept. of Mathematical Sciences, UM. Taught Introduction to Probability and Linear Mathematics (Undergraduate level).

**Assistant Professor, 1996-1997.** Tolani Institute of Management studies, Adipur, Kutch, India Graduate courses in Quantitative Analysis (Business Mathematics and Business Statistics).

## **Publications and Presentations**

**2005.** With others. A Regression Strategy for Analyzing Environmental Data Generated by Spatio-Temporal Processes. *Ecological Modeling*. 181, 93-108.

**2002.** With others. Recent Trends in Hydrologic Balance have Enhanced the Terrestrial Carbon Sink in the United States. *Geophysical Research Letters*. **29**, 106-109.

**2001** Montana Chapter Meeting of the American Statistical Association, Butte. Analysis of the Relationship between Sea and Land surface Climate, and Carbon Budget since 1900 for the United States. October 12, 2001.

**1998** Big Sky Conference on Discrete Mathematics sponsored by National Sc. Foundation and University of Montana, Missoula. Application of a Submodular Function. September 12, 1998.

**1994** Inter Republican Conference of Young Scientists, Minsk, Belarus (Former Soviet Union). Minimization of a Submodular Function. March, 1994.

**1992** Inter Republican conference of Young Scientists., Minsk. Belarus. Local Algorithm for Maximization of a Submodular Function . 1992, p. 171-172

**1991** Matrices Games with Mixed Strategies. *Vestnik BGU*. 1991, V.1., p. 44-47

**1990** Polyhedral Games with Mixed Strategies. Inter Republican conference of Young Scientists, Minsk. Belarus. 1990, p. 286-287

## **Computer Skills**

Languages: C, C++, Java, FORTRAN, IDL, SQL, SPSS, S-PLUS  
Operating Systems: UNIX/LINUX , Windows

