Session on Numerical Optimization

Ana I. Pereira¹ and M. Fernanda P. Costa²

1 Department of Mathematics, Polytechnic Institute of Bragança, Bragança, Portugal

2 Department of Mathematics for Science and Technology, University of Minho, Portugal

Numerical Optimization Session emphasizes modeling, theory and study of numerical algorithms for optimization. Optimization is an important tool in decision science and in the analysis of physical systems. Because of the wide and growing use of optimization in science, engineering, economics, finance and industry, it is important to develop an understanding of optimization algorithms. Knowledge of the capabilities and limitations of these algorithms leads to a better understanding of their impact on various applications, and points the way to future research on improving and extending optimization algorithms and software.

Our goal in this session is to illustrate some modern optimization techniques in our days, by presenting efficient methods to solve different type of optimization problems.

Ana Isabel Pinheiro Nunes Pereira

Ana Isabel Pinheiro Nunes Pereira, Assistant Professor at the Department of Mathematics, Polytechnic Institute of Bragança.

Member of the Algorithm Research Centre.

PhD in 'Numerical Optimization', Minho University, Portugal, 2006.

Publications in the journals: Optimization; Investigação Operacional.

Publications in Proceedings of: International Electronic Conference on Computer Science, Numerical Analysis and Applied Mathematics, EURO Mini Conference "Continuous Optimization and Knowledge-Based Technologies, Computational and Mathematical Methods on Science and Engineering, World Congress of Structural and Multidisciplinary Optimization.

Webpage: www.ipb.pt/~apereira

Email: apereira@ipb.pt

Maria Fernanda Pires da Costa

Maria Fernanda Pires da Costa, Assistant Professor at the Department of Mathematics for Science and Technology, Minho University.

Member of the Mathematical Research Centre CMAT.

PhD in 'Mathematics/Numerical Optimization', Minho University, Portugal, 2002.

Publications in the journals: TOP; International Journal of Mathematical Models and Methods in Applied Sciences; International Journal of Computer Mathematics.

Publications in Proceedings of: International Conference on Numerical Analysis and Applied Mathematics; Congreso Latino-Iberoamericano de Investigación de Operaciones y Sistemas; Congreso Galego de Estatística e Investigación de Operacións; International Conference on Computational and Mathematical Methods in Science and Engineering; EU/Meeting; World Congress on Structural and Multidisciplinary Optimization.

Email: mfc@mct.uminho.pt