Curriculum Vitae
Napoleão Nepomuceno

Personal Data

Nationality: Brazilian
Birthday: 10.29.1980
Telephone: +33 (0)4 92 38 50 16
E-mail: napoleao-vieira.nepomuceno@sophia.inria.fr

Research Interests

1   Combinatorial Optimization
2   Mathematical Programming
3   Hybrid Metaheuristics
4   Network flows

Education

2007 – 2010   Université de Nice Sophia Antipolis – PhD Program in Computer Science, France
               Federal University of Ceará – PhD Program in Computer Science, Brazil
               Advisors: Jean-Claude Bermond, David Coudert, Manoel Campêlo
2003 – 2006   Master in Computer Science (M. Sc.) University of Fortaleza, Brazil
               Title: Combination of Metaheuristics and Integer Linear Programming: A Hybrid Methodology Applied to the Container Loading Problem (in Portuguese)
               Advisor: Plácido Rogério Pinheiro
1998 – 2002   Bachelor in Computer Science (B. Sc.) University of Fortaleza, Brazil
               Title: A Stochastic Linear Programming Model for Investment Selection (in Portuguese)
               Advisor: Plácido Rogério Pinheiro
1998 – 2002   Bachelor in Business Management (B. Sc.) Federal University of Ceará, Brazil
               Title: Risk Analysis of Business Development Projects Based on Stochastic Simulation (in Portuguese)
               Advisor: Álvaro Bandeira de Paula

Professional Experience

2008 – 2010   INRIA – Mascotte Project
               Combinatorial Optimization, Mathematical Programming, Network flows
               Région Provence-Alpes-Côte d'Azur / 3ROAM, France
2007 – 2007   Federal University of Ceará
               Combinatorial Optimization, Mathematical Programming, Network flows
               Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (CAPES), Brazil
2005 – 2007   ND Engenharia & Software
               System Analyst, Developer
2004 – 2005   University of Fortaleza
               Combinatorial Optimization, Cutting and Packing, Hybrid Metaheuristics
               Fund. Cearense de Apoio ao Desenvolvimento Cient. e Tecnológico (FUNCAP), Brazil
2001 – 2002   University of Fortaleza
               Knowledge Modeling, Expert Systems
               Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPQ), Brazil

Idioms

Understand:	Portuguese (Fluently),	English (Well),	French (Well)
Speak:	Portuguese (Fluently),	English (Well),	French (Well)
Read:	Portuguese (Fluently),	English (Well),	French (Well)
Write:	Portuguese (Fluently),	English (Well),	French (Well)

Publications

1. D. COUDERT, N. NEPOMUCENO, and H. RIVANO. Power-Efficient Radio Configuration in Fixed Broadband Wireless Networks. Computer Communications, Special Section on Hot Topics in Mesh Networking, 33(8):898-906, May 2010.

2. N. COHEN, D. COUDERT, D. MAZAURIC, N. NEPOMUCENO, and N. NISSE. Tradeoffs in process strategy games with application in the WDM reconfiguration problem. In P. Boldi and L. Gargano, editors, Fifth International conference on Fun with Algorithms (FUN 2010), volume 6099 of Lecture Notes in Computer Science, Ischia Island, Italy, pages 121-132, June 2010. Springer.

3. N. COHEN, D. COUDERT, D. MAZAURIC, N. NEPOMUCENO, and N. NISSE. Tradeoffs in routing reconfiguration problems. In Maria Gradinariu Potop-Butucaru et Hervé Rivano, editor, 12èmes Rencontres Francophones sur les Aspects Algorithmiques de Télécommunications (AlgoTel), Belle Dune France, pages 4p, 2010.

4. D. COUDERT, N. NEPOMUCENO, and H. RIVANO. Joint Optimization of Routing and Radio Configuration in Fixed Wireless Networks. In A. Chaintreau and C. Magnien, editors, 11ème Rencontres Francophones sur les Aspects Algorithmiques des Télécommunications (AlgoTel'09), Carry le Rouet, pages 4p, June 2009.

5. N. COHEN, D. COUDERT, D. MAZAURIC, N. NEPOMUCENO, and N. NISSE. Tradeoffs when optimizing Lightpaths Reconfiguration in WDM networks.. Technical report RR-7047, INRIA, September 2009.

6. D. COUDERT, N. NEPOMUCENO, and H. RIVANO. Minimizing Energy Consumption by Power-Efficient Radio Configuration in Fixed Broadband Wireless Networks. In: First IEEE WoWMoM Workshop on Hot Topics in Mesh Networking (HotMESH), Kos, Greece, June 2009.

7. D. COUDERT, N. NEPOMUCENO, and H. RIVANO. Wireless Backhaul Networks: Minimizing Energy Consumption by Power Efficient Radio Links Configuration. Technical report, RR-6752, INRIA, December 2008.

8. A. AGUIAR, P.R. PINHEIRO, A.L.V. COELHO, N. NEPOMUCENO, A. NETO, and R. CUNHA. Scalability Analysis of a Novel Integer Programming Model to Deal with Energy Consumption in Heterogeneous Wireless Sensor Networks. In: Modelling, Computation and Optimization in Information Systems and Management Sciences (MCO), 2008, Metz. Berlin: Springer, 2008. CCIS, v.14, p.11 - 20.

9. N. NEPOMUCENO, P.R. PINHEIRO, A.L.V. COELHO. A Hybrid Optimization Framework for Cutting and Packing Problems: Case Study on Constrained 2D Non-Guillotine Cutting. In: Recent Advances in Evolutionary Computation for Combinatorial Optimization. Berlin: Springer, 2008. SCI, v.153, p.97 – 99

10. N. NEPOMUCENO, P.R. PINHEIRO, A.L.V. COELHO. Tackling the Container Loading Problem: A Hybrid Approach Based on Integer Linear Programming and Genetic Algorithms. In: VII European Conference on Evolutionary Computation in Combinatorial Optimization (EVOCOP), 2007, Valencia. Proc. of European Conference on Evolutionary Computation in Combinatorial Optimization. Berlin: Springer, 2007. LNCS, v.4446, p.154 – 165

11. N. NEPOMUCENO, P.R. PINHEIRO, A.L.V. COELHO. Combining Metaheuristics and Integer Linear Programming: A Hybrid Methodology Applied to the Container Loading Problem In: XX Concurso de Teses e Dissertações (CTD), 2007, Rio de Janeiro. Anais do XXVII Congresso da Sociedade Brasileira de Computação, 2007. p.2028 – 2032

12. N. NEPOMUCENO, P.R. PINHEIRO, A.L.V. COELHO. Metaheurística e Programação Linear Inteira: Um Algoritmo Híbrido para o Problema de Carregamento de Contêineres In: XIII Congreso Latino-Iberoamericano de Investigación Operativa (CLAIO), 2006, Montevideo. Proc. of Congreso Latino-Iberoamericano de Investigación Operativa, 2006. (in Portuguese)

13. N. NEPOMUCENO, P.R. PINHEIRO, A.L.V. COELHO. Aplicação de uma Metodologia Híbrida ao Problema de Carregamento de Contêineres In: XXXVIII Simpósio Brasileiro de Pesquisa Operacional (SBPO), 2006, Goiania. Proc. Of Simpósio Brasileiro de Pesquisa Operacional, 2006. p.1596 - 1603 (in Portuguese).

14. N. NEPOMUCENO. Uma ferramenta de construção e inferência de regras de produção integrada com ontologia. In: VIII Encontro de Iniciação à Pesquisa, 2002, Fortaleza. Anais do VIII Encontro de Iniciação à Pesquisa. Fortaleza: Universidade de Fortaleza, 2002. (in Portuguese).

Technical skills

Languages	C, C++, Java, Delphi, AMPL, LINGO, LaTeX
Software	AMPL, CPLEX, LINGO, LINDO

Awards

2007	Among the 10 best Master's Thesis on Computer Science in Brazil (XX Thesis and Dissertation Contest - CTD 2007), Brazilian Computer Society
2002	The best performance of the Center of Technological Sciences, University of Fortaleza
2002	The best performance of the Bachelor Program in Informatics, University of Fortaleza