

Pietro Belotti – Publications (June 9, 2008)

Journals

- P. Belotti, M.Ç. Pınar, "Optimal oblivious routing under statistical uncertainty," to appear, *Optimization and Engineering*.
- A. Altın, E. Amaldi, P. Belotti, M.Ç. Pınar, "Provisioning virtual private networks under traffic uncertainty," *Networks* 49 (1), pp. 90-99, 2007.
- P. Belotti, L. Brunetta, F. Malucelli, "Multicommodity network design with discrete node costs," *Networks* 49 (1), pp. 100-115, 2007.
- P. Belotti, S. Kucherenko, L. Liberti, N. Maculan, "New formulations for the Kissing Number Problem," *Discrete Applied Mathematics* 155 (14), pp. 1837-1841, 2007.
- E. Amaldi, P. Belotti, A. Capone, F. Malucelli, "Optimizing base station location and configuration in UMTS networks," *Annals of Oper. Res.* 146 (1), pp. 135-151, 2006.
- P. Belotti, A. Capone, G. Carello, F. Malucelli, "Multi-layer MPLS Network Design: the Impact of Statistical Multiplexing," *Computer Networks* 52 (6), pp. 1291-1307, 2008.
- P. Belotti, M. Labbé, F. Maffioli, M. Ndiaye, "A branch-and-cut method for the Obnoxious p -Median problem", *4OR* 5 (4), pp. 299-314, 2007.
- P. Belotti, "Multicommodity network design with survivability constraints: some models and algorithms," *4OR* 3 (1), pp. 79-81, 2005.

International conference proceedings

- E. Amaldi, P. Belotti, R. Hauser, "Randomized relaxation methods for the maximum feasible subsystem problem". Proceedings, IPCO XI, Berlin 2005. *Lecture Notes in Computer Science* 3509: 249–264 (2005).
- P. Belotti, A. Capone, G. Carello, F. Malucelli, F. Senaldi, A. Totaro, Design of Multi-layer networks with traffic grooming and statistical multiplexing 3rd International Network Optimization Conference (INOC 2007), Spa, Belgium.
- P. Belotti, A.M.C.A. Koster, S. Orłowski, A cut-and-branch-and-price approach to two-layer network design, The Eighth INFORMS Telecommunications Conference, Dallas, Texas, 2006.
- P. Belotti, C. Spinelli, E. Pedrinelli, M. Fumagalli, V. Mascolo, "Evolution of traffic demand and dimensioning a metro-regional transport network", *Fotonica* 2005 (invited).
- P. Belotti, F. Malucelli, "Row-column generation for multilayer network design", *INOC 2005*, Lisbon, Portugal, 22-24 March 2005.
- P. Belotti, F. Malucelli, "Network design with grooming constraints". *CTW '04*, June 2004, Menaggio, Italy. *Electronic Notes in Discrete Mathematics* 17 (C) pp. 51–56, 2004.
- A. Altın, E. Amaldi, P. Belotti, M. Pınar, "Provisioning Virtual Private Networks under Traffic Uncertainty." *CTW '04*, June 2004, Menaggio, Italy. *Electronic Notes in Discrete Mathematics* 17 (C) pp. 19–22, 2004.
- P. Belotti, F. Malucelli, "Row and column generation for multi-layer network design," *OR 2004*, Tilburg, 1-3 September 2004.
- P. Belotti, F. Malucelli, "A Lagrangian Relaxation approach to network design with Shared Protection", *INOC 2003*, Paris-Evry (France).

P. Belotti, T. Stidsen, "Optimal Placement of Wavelength Converting Nodes," *DRCN '01*, Budapest, Hungary, 1-3 October 2001.

M. Labbé, F. Maffioli, M. Ndiaye, P. Belotti, "Obnoxious p -median problems: valid inequalities and a branch and cut approach", proceedings of ORP³, Paris 2001.

Technical Reports

P. Belotti, R. Cordone, F. Malucelli, "Column generation procedures for a routing problem in SDH networks," Internal report, 2005, Alcatel, Vimercate (Italy).

P. Belotti, "A survival model for *Tapes Philippinarum*," Internal report 2002.17, DEI, Politecnico di Milano.

P. Belotti, "Coverage planning for Terrestrial Digital Video Broadcasting," Internal report 2001.97, DEI, Politecnico di Milano.

P. Belotti, P. Saltsidis, "An evaluation of software for the optimal design of telecommunication networks," Internal report, 2001, ONER, Ericsson, Stockholm.

P. Belotti, "Valid inequalities and Branch-and-cut for the Obnoxious p -median problem," Internal report 2000.49, DEI, Politecnico di Milano.

P. Belotti, L. Brunetta, F. Malucelli, "Multicommodity network design with discrete node costs," 2003, DEI, Politecnico di Milano.

Submitted

A. Altın, P. Belotti, and M.Ç. Pınar, "OSPF Routing with Optimal Oblivious Performance Ratio Under Polyhedral Demand Uncertainty," 2006, *Discrete Applied Mathematics* (pdf)

In preparation

P. Belotti, A. Wächter, F. Margot, I. Grossmann, Exact solvers for non-convex MINLPs: Branching and bound reduction techniques.

P. Belotti, A parallel relaxation method for linear and non-linear optimization problems.

P. Belotti, A. Saxena, Probabilistic Network Design: a branch-and-cut approach.