

Pietro Belotti – Publications (November 5, 2009)

Journals

- P. Belotti, J. Lee, L. Liberti, F. Margot, A. Wächter, Branching and bounds tightening techniques for nonconvex MINLP. *Optimization Methods & Software* 24(4-5):597-634, 2009.
- A. Altın, P. Belotti, and M.Ç. Pınar, “OSPF Routing with Optimal Oblivious Performance Ratio Under Polyhedral Demand Uncertainty.” To appear, *Optimization and Engineering*, 2009. (pdf)
- P. Belotti, M.Ç. Pınar, “Optimal oblivious routing under statistical uncertainty,” *Optimization and Engineering* 9(3):257-271, 2008.
- P. Belotti, A. Capone, G. Carello, F. Malucelli, “Multi-layer MPLS Network Design: the Impact of Statistical Multiplexing,” *Computer Networks* 52 (6), pp. 1125-1342, 2008.
- A. Altın, E. Amaldi, P. Belotti, M.Ç. Pınar, “Provisioning virtual private networks under traffic uncertainty,” *Networks* 49 (1):90-99, 2007.
- P. Belotti, L. Brunetta, F. Malucelli, “Multicommodity network design with discrete node costs,” *Networks* 49 (1):100-115, 2007.
- P. Belotti, S. Kucherenko, L. Liberti, N. Maculan, “New formulations for the Kissing Number Problem,” *Discrete Applied Mathematics* 155 (14):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):135-151, 2006.
- P. Belotti, M. Labbé, F. Maffioli, M. Ndiaye, “A branch-and-cut method for the Obnoxious p -Median problem”, *4OR* 5 (4):299-314, 2007.
- P. Belotti, “Multicommodity network design with survivability constraints: some models and algorithms,” *4OR* 3 (1):79-81, 2005.

Book Chapters

- A.M.C.A. Koster, S. Orlowski, C. Raack, G. Baier, T. Engel, P. Belotti, “Branch-and-cut techniques for solving realistic two-layer network design problems”. In A.M.C.A. Koster, Xavier Muñoz (eds.), *Graphs and Algorithms in Communication Networks*, Springer-Verlag, 2009.

International conference proceedings

- G. Panza A. Capone, D. Pinarello, P. Belotti, Robustness in Next-Generation Networks, ICT Summit Europe 2009, Santander, Spain.
- 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. Orlowski, A cut&branch&price approach to two-layer network design, The 8th INFORMS Telecommunications Conference, Dallas TX 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):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):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.

Submitted

P. Belotti, F. Margot, A. Qualizza, Linear Programming Relaxations of Quadratically Constrained Quadratic Programs. *Tepper Working Paper 2009-E20* (2009).

G. Nannicini and P. Belotti, A local branching heuristic for MINLPs, 2009. Available at <http://adsabs.harvard.edu/abs/2008arXiv0812.2188N>.

P. Belotti, Disjunctive cuts for non-convex MINLP. *Optimization Online*, July 2009. http://www.optimization-online.org/DB_HTML/2009/07/2354.html