

Effekt Publications

2011

Bach L., G. Hasle, S. Wøhlk: Lower and Upper Bounds for the Node, Edge, and Arc Routing Problem. SINTEF Report A21884, Oslo November 2011, ISBN 978-82-14-05277-0.

Hasle G., O. Kloster, M. Smedsrud: A Capacitated Clustering-based Method for Newspaper Delivery Routing. Invited talk at IFORS 2011. Melbourne, Australia, July 14 2011.

Hasle G., C. Schulz: How to program efficient optimization algorithms on Graphics Processing Units - The Vehicle Routing Problem as a case study. Seminar (invited talk) at the University of Newcastle, Australia, July 6 2011.

Kloster O., T. Flatberg, G. Hasle: A heuristic for rich maritime inventory routing problems. Seminar (invited talk) NICTA / University of New South Wales, Sydney, Australia, July 5 2011.

Hasle G. Logistikk = matematikk. Invited talk at the 10th anniversary seminar for Distribution Innovation AS, Oslo, Norway, June 20, 2011 (In Norwegian).

Grønsund S. A. Ruteoptimalisering integrert. Invited talk at the 10th anniversary seminar for Distribution Innovation AS, Oslo, Norway, June 20, 2011 (In Norwegian).

Schulz C., G. Hasle: Neighborhood Evaluation on GPU for the DCVRP - Discrete optimization needs heterogeneous computing . Invited talk at ROUTE 2011, Sitges, Spain, June 1 2011.

Bräysy O.: Real-life case studies on transport and workforce optimization. Invited talk at 3rd Collab Workshop, Oslo, Norway May 10-12 2011.

Gendreau M.: New developments in Integrative Cooperative Search for rich vehicle routing problems. Invited talk at 3rd Collab Workshop, Oslo, Norway May 10-12 2011.

Smedsrud M.: Real-world Newspaper Distribution. Invited talk at 3rd Collab Workshop, Oslo, Norway May 10-12 2011.

Hasle G., Schulz C., Hagen T. R.: "The Beach Law" does not hold any more - Discrete optimization needs heterogeneous computing. Invited talk (seminar) at CORAL, Aarhus School of Business and Social Sciences, Aarhus, Denmark, March 16 2011.

2010

Hoff A., H. Andersson, M. Christiansen, G. Hasle, A. Løkketangen (2010). Industrial Aspects and Literature Survey: Fleet Composition and Routing. *Computers & Operations Research* 37 (12), December 2010, Pages 2041-2061. Available online on <http://dx.doi.org/10.1016/j.cor.2010.03.015>

Hasle G., Kloster O., Smedsrud M.: Vehicle routing problems in media product distribution. Talk at the 4th Nordic Optimization Symposium (4th NOS), Aarhus, Denmark, October 2, 2010.

Andersson H., A. Hoff, M. Christiansen, G. Hasle, A. Løkketangen: Industrial Aspects and Literature Survey: Combined Inventory Management and Routing. *Computers & Operations Research* 37 (9) 2010, pp 1515-1536. Available online on <http://dx.doi.org/10.1016/j.cor.2009.11.009>

Hasle G., Kloster O., Smedsrud M.: Aspects of routing problems in media product distribution. Invited talk at the 24th European Conference on Operational Research (EURO XXIV), Lisbon, Portugal, July 11-14 2010.

Hasle G., Kloster O., Riise A., Schulz C., Smedsrud M.: Using Heterogeneous Computing for Solving Vehicle Routing Problems. Presented at the Seventh Triennial Symposium on Transportation Analysis (TRISTAN VII), Tromsø, Norway, June 20-25, 2010. TRISTAN VII Book of Extended Abstracts, p354 <http://www.sintef.no/project/tristan/Tristan%20VII%20-%20Details%20-%20Current.pdf>

Hasle G. (2010). Vehicle Routing in Practice. Invited plenary talk at The EURO Working Group on Locational Analysis XVIII (EWGLA 2010), Naples, Italy April 28-30 2010.

Hasle G.: Optimization-based decision support within healthcare and transportation. Invited talk at eVITA Scientific Meeting 2010, Geilo, Norway, January 28 2010.

2009

Holden N., G. Hasle (2009): Extending the Lin-Kernighan algorithm to improve solutions to VRPs with Time Windows. SINTEF report A13822, October 2009, ISBN 978-82-14-04459-1.

Kloster Oddvar, Flatberg Truls (2009). A heuristic for maritime inventory routing. Invited talk at EURO XXII, Bonn, Germany, Jul 05 - Jul 08.

D Soler, E Martinez, Y Nagata, O Bräysy (2009). Solving multivehicle routing problems with turn penalties. Submitted to Transportation Science.

Bräysy O, Hotokka P, Dullaert W, Nagata Y (2009). An adaptive diversification heuristic for the fleet size and mix vehicle routing problem with time windows. Submitted to Journal of Heuristics.

Nagata Y, Dullaert W, Bräysy O. (2009). A Powerful Memetic Algorithm for time-constrained vehicle routing problems. Presented at the Odysseus workshop, May 26-29th, Cesme, Turkey.

Bräysy, O. The future of Transport Planning (2009). International Workshop on Transport Optimization Challenges in Contemporary Practice, May 12-14th, Jyväskylä, Finland.

Bräysy, O. The Challenges of Transport Optimization (2009). International Workshop on Transport Optimization Challenges in Contemporary Practice., May 12-14th, Jyväskylä, Finland.

Nagata Y, Bräysy O, Dullaert W (2009). A Penalty-based edge assembly memetic algorithm for the vehicle routing problem with time windows. Computers & Operations Research 37, 724–737.

Hasle G., T. Flatberg, O. Kloster, E. J. Nilssen, M. Smedsrud: The Node Edge Arc Routing Problem - applications and heuristics. Invited talk at EURO XXIII - 23rd European Conference on Operational Research, Bonn, Germany, July 5-8, 2009.

Hasle G., O. Bräysy, W. Dullaert, P. Porkka: Heuristic Strategies for Solving Large-Scale Vehicle Routing Problems. Invited talk at Route2009 - International workshop on vehicle routing, intermodal transport and related areas. ROLIGHED, Skodsborg, Denmark, June 21-24, 2009.

Flatberg T., O. Kloster, E. J. Nilssen, M. Smedsrud, G. Hasle: Solving Node Edge Arc Routing Problems in the Distribution of Media Products. Talk at ODYSSEUS 2009 - Fourth International Workshop on Freight Transportation and Logistics. Çeşme, Turkey, May 26-29, 2009.

Hasle G.: Heuristic Strategies for Solving Large-Scale Vehicle Routing Problems. Invited talk at the international workshop TRANSPORT OPTIMIZATION CHALLENGES IN CONTEMPORARY PRACTISE, Jyväskylä, Finland, May 12-14, 2009.

Nagata Y, Bräysy O. (2009). A Powerful Route Minimization Heuristic for the Vehicle Routing Problem with Time Windows. *Operations Research Letters* 37, 2009, pp 333-338.

Theys C, Bräysy O, Dullaert W. and B. Raa (2009). Using a TSP heuristic for routing order pickers in warehouses. *European Journal of Operational Research* 200, pp 755-763.

Mester D., Ronin Y., Korostishevsky M., Frenkel Z., Braysy O., Dullaert W., Raa B. and Korol A. (2009). TSP-like genome mapping problems. In: *Operations Research: Decision Analysis, Optimization, and Applications*, in press.

Theys C, Bräysy O, Dullaert W. and B. Raa (2009). Towards a metaheuristic for routing order pickers in a warehouse. In: *Evolutionary methods for design, optimization and control*. Neittaanmäki, P., Périaux, J and T. Tuovinen (Eds.), CIMNE, Barcelona, Spain.

Dullaert W, Bräysy O. and A. Salehipour (2009). Estimating the cost-to-serve of customers in a routing problem. in: *Evolutionary methods for design, optimization and control*. Neittaanmäki, P., Périaux, J and T. Tuovinen (Eds.), CIMNE, Barcelona, Spain.

Crujssen F, Bräysy O, Dullaert W, Fleuren H, and Salomon M. (2009). Estimating synergies of joint route planning. In: *Evolutionary methods for design, optimization and control*. Neittaanmäki, P., Périaux, J and T. Tuovinen (Eds.), CIMNE, Barcelona, Spain.

Dullaert, W., Bräysy O., Van de Weyer, G. (2009). Insertion zones for routing problems. In: *Evolutionary methods for design, optimization and control*. Neittaanmäki, P., Périaux, J and T. Tuovinen (Eds.), CIMNE, Barcelona, Spain.

2008

Hasle G.: Forskningsutfordringer innen distribusjon av medieprodukter. Invitert foredrag, Distribusjonsseminar, Mediebedriftenes landsforening, Gardermoen 9. desember 2008.

Olli Bräysy, Pekka Hotokka, Yuichi Nagata, Wout Dullaert (2008). An adaptive diversification heuristic for the Fleet Size and Mix Vehicle Routing Problem with Time Windows. *EUME Workshop Metaheuristics for Logistics and Vehicle Routing* 23-24 October 2008.

Bräysy O, Dullaert W, Nakari P. (2008). The potential of optimization in communal routing problems: case studies from Finland. *Journal of Transport Geography* 17, pp 484-490.

Bräysy O., Nakari P., Dullaert W., Neittaanmäki P. (2008). An Optimization Approach for Communal Home Meal Delivery Service: A Case Study. *Journal of Computational and Applied Mathematics* 232, pp 46-53.

Nagata Y, Bräysy O. (2008), "Edge Assembly based Memetic Algorithm for the Capacitated Vehicle Routing Problem", *Networks* 54, pp 205-215.

Repoussis PP, Tarantilis CD, Bräysy O, Ioannou G. (2008). A Hybrid Evolution Strategy for the Open Vehicle Routing Problem. Accepted for publication in *Computers & Operations Research*.

- Bräysy O., Porkka P, Dullaert W, Repoussis P and Tarantilis C. (2008). "A Well-scalable Metaheuristic for the Fleet Size and Mix Vehicle Routing Problem with Time Windows". *Expert Systems with Applications* 36, pp8460-8475.
- Bräysy O, Hotokka P, Nagata Y. (2008). Estimation strategies for vehicle route lengths. In: *Evolutionary methods for design, optimization and control*. Neittaanmäki, P., Périaux, J and T. Tuovinen (Eds.), CIMNE, Barcelona, Spain, in press.
- Bräysy O., Hotokka P., Nagata Y., Dullaert W. (2008). Adaptive Diversification Metaheuristic for the FSMVRPTW. Invited talk at VIP 2008 Workshop, Oslo, Norway, June 12-14.
- Dullaert W., Bräysy O., Cruijssen F., de Borger B. (2008). Vehicle routing methodologies to support costing and pricing decisions. Invited talk at VIP 2008 Workshop, Oslo, Norway, June 12-14.
- Bräysy O., Hotokka P., Dullaert W., Nagata Y. (2008). A well-scalable metaheuristic for the large-scale fleet size and mix vehicle routing problem with time windows. Presented at IFORS 2008 conference, Johannesburg, South Africa, July 13-18th.
- Hasle G.: International Workshop on Vehicle Routing in Practice (VIP'08) - Oppsummering. SINTEF Report A8457, ISBN 978-82-14-04407-02, 2008. In Norwegian.
- Hasle G.: Applied Optimization at SINTEF. Invited talk at the Department of Mathematical Information Technology, University of Jyväskylä, Finland, October 9 2008.
- Hasle G.: Industrial Vehicle Routing. Invited talk at the International Conference Operations Research 2008, Augsburg, Germany.
- Bräysy O., W. Dullaert, G. Hasle, D. Mester, M. Gendreau: An Effective Multirestart Deterministic Annealing Metaheuristic for the Fleet Size and Mix Vehicle-Routing Problem with Time Windows. *Transportation Science* Vol. 42, No 3, pp. 371-386, August 2008.
- Hasle G., O. Kloster: Vehicle Routing in Practice. Chapter in Buchholz P., A. Kuhn (eds): *Optimization of Logistics Systems – Methods and Experiences*. Praxiswissen, Dortmund, Germany, 2008. ISBN 978-3-89957-068-7.
- Eivind Nilssen: Aggregation based on road topologies for large scale VRPs. Invited talk at The International Workshop Vehicle Routing in Practice 2008 (VIP'08), Oslo, Norway, June 2008, <http://www.sintef.no/VIP08/>.
- Oddvar Kloster: Calculating time-dependent travel times for VRPs. Invited talk at The International Workshop Vehicle Routing in Practice 2008 (VIP'08), Oslo, Norway, June 2008, <http://www.sintef.no/VIP08/>.
- Andersson H., Hoff A., M. Christiansen, G. Hasle, A. Løkketangen: Industrial Aspects and Literature Survey: Inventory Routing. SINTEF Report A7029, ISBN 978-82-14-04397-6, 2008.
- Hoff A., H. Andersson, M. Christiansen, G. Hasle, A. Løkketangen: Industrial Aspects and Literature Survey: Fleet Dimensioning and Routing. SINTEF Report A7029, ISBN 978-82-14-04397-6, 2008.