

Short CV for Arne Løkketangen

Arne Løkketangen is professor of informatics with an interest in metaheuristics for combinatorial optimization problems, with a focus on transportation planning problems. He joined Molde University College as associate professor in 1988, after 10 years of consulting in the private sector. He has his Ph.D. from the University of Bergen in 1995, and is a full professor in informatics at Molde College since 2001. He has around 60 internationally refereed papers, organized 5 international workshops in Molde and been on the international committee of more than 50 international conferences. His work has been presented in around 130 lectures and 3 tutorials at international scientific meetings. He has given around 40 guest lectures at leading universities and research institutions around the world. He has been leader of the Nordic Math Programming Society chapter, and is on the editorial board of 7 international scientific journals (*Journal of Heuristics*, *Journal of Mathematical Modelling and Algorithms*, *Informatics Journal on Computing*, *Computers and Operations Research*, *The Open Cybernetics and Systemics Journal*, *International Journal of Management Science and Engineering* and *Applied Computational Intelligence and Soft Computing*), as well as refereeing for 40 different journals and around 50 special issues, books and conferences. He is currently the leader of the Molde University College Optimization Group, as well as local project leader for the DOMinant project, supported by Norway Research, and participating in several other research projects.

Professor Løkketangen is 56 years old, has two children (aged 22 and 25), and is a mushroom collector. He also likes to fish in the local fiord.

Publications last 5 years

Accepted for Publication

- Demir, Leyla, Semra Tumir and Arne Løkketangen. "A tabu search approach for buffer allocation in production lines with unreliable machines". Accepted for publication in *Engineering Optimization*.
- Løkketangen, A. and R. Olsson. "Generating Metaheuristic Optimization Code using Adate". Forthcoming in *Journal of Heuristics*, special issue on Hyperheuristics in Search and Optimisation.
- Crainic T., A. Hoff, A.-G. Lium and A. Løkketangen. "A Stochastic Service Network Design Meta-Heuristic". Forthcoming in *Journal of Heuristics*.

2010

- Oppen J., A. Løkketangen and J. Desrosiers. (2010). "Solving the Livestock Collection Problem using Column Generation". *Computers & Operations Research*. 37, Pages 1308-1317
- Hoff, A., H. Anderson, M. Christiansen, G. Hasle and A. Løkketangen. (2010). "Industrial Aspects and Literature Survey: Fleet Composition and Routing". *Computers & Operations Research* 37, pp. 2041-2061.
- Hvattum, L.M., H. Arntzen, A. Løkketangen and F. Glover. (2010). "Alternating Control Tree Search for Knapsack/Covering Problems". *Journal of Heuristics* – special issue dedicated to MIC 2007, Vol 16, No 3, pp 239 – 258.

- Anderson, H., A. Hoff, M. Christiansen, G. Hasle and A. Løkketangen. "Industrial Aspects and Literature Survey: Combined Inventory Management and Routing". *Computers & Operations Research* 37, pp 1515–1536.

2009

- Hvattum L.M. and A. Løkketangen. "Using Scenario Trees and Progressive Hedging for Stochastic Inventory Routing Problems". *Journal of Heuristics*, Vol 15, issue 6, pp 527-557.
- Arne Løkketangen, Nils Ove Erstad and Stian Kroknes. "Time-dependent travel times – the case with ferries". MIC proceedings. Metaheuristic International Conference, Hamburg, Germany, 12-16 July 2009.
- Hideki Hashimoto, Youichi Ezaki, Mutsunori Yagiura, Koji Nonobe, Toshihide Ibaraki and Arne Løkketangen. "A Set Covering Approach for the Pickup and Delivery Problem with General Constraints on Each Route". *Pacific Journal of Optimization*, Vol 5, No 2, pp 185 – 202.
- Fagerholt, K., J. Korsvik and A. Løkketangen. (2009). "Ship routing and scheduling with persistence and distance objectives". In: Ed: M. Grazia Speranza. Conference book International Workshop in Distribution Logistics, IWDL, Springer - LNCS.
- Hvattum L.M., A. Løkketangen and G. Laporte. (2009). "Scenario Tree Based Heuristics for Stochastic Inventory Routing Problems". *INFORMS Journal on Computing*, Vol 21, No 2, pp 268 – 285.
- Branchini, Rodrigo M., Vinicius Armentano and Arne Løkketangen (2009). "Adaptive Granular local search for a dynamic vehicle routing problem". *Computers & Operations Research* 36, pp 2955 - 2968.
- Hoff, A, G. Laporte, A. Løkketangen and I. Gribkovskaia. (2009). "Lasso solution strategies for the vehicle routing problem with pickups and deliveries". *EJOR*, Vol 192, pp 755-766.

2008

- Greistorfer, P, A. Løkketangen, S. Voss and D.L. Woodruff. "Experiments Concerning Sequential versus Simultaneous Maximization of Objective and Diversity". *Journal of Heuristics*, Vol 14, No. 6, pp 613 - 625.
- Gendreau, M., J.-Y. Potvin, O. Braisy, G. Hasle and A. Løkketangen. "Metaheuristics for the Vehicle Routing Problems: A Categorized Bibliography". In: **Vehicle Routing**. Eds. B. Golden and E. Wasil. Pp 143 – 171.
- Oppen J. and A. Løkketangen. (2008). "A Tabu Search approach to the The Livestock Collection Problem". *Computers & Operations Research* 35, pp 3213 - 3229.

2007

- Brønmo, G. and A. Løkketangen. "An adaptive constructive solution generator for ship scheduling DSS". *Proceedings Norwegian Informatics Conference - NIK 2007*, pp 1 - 12
- Hvattum, L.M. and A. Løkketangen. "Experiments using Scatter Search for the Multidemand Multidimensional Knapsack Problem". *Conference Proceedings book, MIC 2005*, pp 3 – 25.

- Hasimoto, H., Y. Ezaki, M. Yagiura, K. Nonobe, T. Ibaraki and A. Løkketangen. “A set covering approach for the pickup and delivery problem with general constraints on each route”. *Proceedings SLS 2007*, Lecture Notes in Computer Science, Springer.
- Løkketangen, A. “The Importance of Being Careful”. *Proceedings SLS 2007*, Lecture Notes in Computer Science, Springer.
- Oppen, J, A.Løkketangen and D.L. Woodruff.(2007). “How rich can a rich VRP be?”. Working Paper, Molde College. Accepted by *The 11th World Conference on Transportation Research*, Berkeley, USA, 24-28 June 2007.
- Hvattum, L.M., A. Løkketangen and G. Laporte. (2007). “A Branch-and-Regret Heuristic for Stochastic and Dynamic Vehicle Routing Problems”. *Networks – special issue from Route 2005*, Vol 49, issue 4, pp 330 340.
- Crainic, T, A. Løkketangen and S.W. Wallace. (2007). Editorial. *JMMA – Journal of Mathematical Modeling and Algorithms*. Vol 6, No. 1.

2006

- Løkketangen, A. (ed). (2006). “Norsk Informatikkonferanse - NIK 2006”. Tapir Akademisk Forlag. 200 s. ISBN 8251921864.
- Hasle G., A. Løkketangen and S. Martello. (2006). “Rich models in discrete optimization: Formulation and resolution (ECCO XVI)”. Editorial *European Journal of Operations Research*, Vol 175, issue 3, pp 1752-1753.
- Hvattum, L.M., A. Løkketangen and G. Laporte. (2006). “Solving a Dynamic and Stochastic Vehicle Routing Problem with a Sample Scenario based Hedging Heuristic”. *Transportation Science*, Vol 40, No. 4, pp. 421 - 438.
- Hoff, A. and A. Løkketangen. (2006). “Creating Lasso-Solutions for the TSP-PD Problem by Tabu Search”. *Central European Journal on Operations Research - special issue on rich vrp models*.
- Arntzen, H., L.M. Hvattum and A. Løkketangen. (2006). “Adaptive Memory Search for Multidemand Multidimensional Knapsack Problems”. *C&OR – special 20 year of TS anniversary issue*, Vol 33, pp 2508 - 2525.
- Oppen, J., A. Løkketangen..(2006). “Arc Routing in a Node Routing Environment”. *C&OR*, Vol 33, pp 1033 - 1055.
- L.M. Hvattum, A. Løkketangen and F. Glover. (2006). ”New Heuristics and Adaptive Memory Procedures for Boolean Optimization Problems”. In the book **Integer Programming: Theory and Practice**. Ed: John Karlof, CRC Press, pp 1 - 18.

2005

- Oppen, J, and A. Løkketangen.(2005). “The livestock collection problem”. *NIK 2005 conference proceedings book*.
- A. Løkketangen and F. Glover.(2005). ”Adaptive Memory Search Guidance for Satisfiability Problems”. In: **Metaheuristic Optimization Via Adaptive Memory and Evolution: Tabu Search and Scatter Search**, Eds.: C. Rego and B. Alidaie. Kluwer Academic Publishers, pp 213 – 227.
- Arntzen, H. and A. Løkketangen. (2005). “A Tabu Search Heuristic for a University Timetabling Problem”. In: **Metaheuristics : Progress as Real Problem Solvers**. Springer. Eds.: Ibaraki, T, Nonobe, K, and Yagiura, M.

- A. Løkketangen and D.L.Woodruff.(2005). “A Distance Function to Support Optimized Selection Decisions”. *Decision Support Systems*, Vol 39, Issue 3, pp 309 – 332.