Dag Haugland - Publication list

Journal publications

[1] Haugland,D., Å.Hallefjord, H.Asheim (1988): Models for petroleum field exploitation, *European Journal of Operational Research*, 37, 1, pp.58-72.

[2] Haugland,D., S.W.Wallace (1988): Solving many linear programs that differ only in the righthand side, *European Journal of Operational Research*, 37, 3, pp.318-324.

[3] Haugland,D., K.Jörnsten, E.Shayan (1991): Modelling petroleum fields with movable platforms, *Applied Mathematical Modelling*, 15, pp.33-39.

[4] Foulds,L.R., D.Haugland, K.Jörnsten (1992): A bilinear approach to the pooling problem, *Optimization*, 24, pp.165-180.

[5] Haugland,D., J.G.Heber, J.H.Husøy (1997): Optimization Algorithms for ECG Data Compression, *Medical & Biological Engineering & Computing*, 35, 420-424.

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[7] Ho,S.C., D.Haugland (2004): A tabu search heuristic for the vehicle routing problem with time windows and split deliveries, *Computers & Operations Research*, 31, 12, pp.1947-1964.

[8] Haugland,D., S.Storøy (2006): Local Search Methods for l1-Minimization in Frame Based Signal Compression, *Optimization and Engineering*, 7, 1, pp.81-96.

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[10] Yuan,D., J.Bauer, D.Haugland (2008): Minimum-energy broadcast and multicast in wireless networks: An integer programming approach and improved heuristic algorithms, *Ad Hoc Networks*, 6, 5, pp.696-717.

[11] Bauer,J., D.Haugland, D.Yuan (2008): Analysis and Computational Study of Several Integer Programming Formulations for Minimum-Energy Multicasting in Wireless Ad Hoc Networks, *Networks* 52, 2, pp.57-68.

[12] Bauer,J., D.Haugland, D.Yuan (2009): New results on the time complexity and approximation ratio of the Broadcast Incremental Power algorithm, *Information Processing Letters*, 109, 12, pp.615–619.

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[14] Bauer, J., K.Altinkemer, D.Haugland (2010): Center-oriented algorithms for the minimum energy broad and multicast problem in wireless ad hoc networks, *Electronic Commerce Research and Applications*, 9, 3, pp.228–236.

[15] Borraz-Sánchez,C., D.Haugland (2011): Minimizing fuel cost in gas transmission networks by dynamic programming and adaptive discretization, *Computers & Industrial Engineering*, 61, pp.364–372.

[16] Ho,S.C., D.Haugland (2011): Local search heuristics for the probabilistic dial-a-ride problem, *OR Spectrum*, 33, 4, pp.961–988.

[17] Yuan,D., D.Haugland (2012): Dual decomposition for computational optimization of minimum-power shared broadcast tree in wireless networks, *IEEE Transactions on Mobile Computing*, 11(12), pp.2008–2019.

[18] Alfaki,M., D.Haugland (2013): Strong formulations for the pooling problem, *Journal of Global Optimization*, 56, 3, pp.897–916, doi: 10.1007/s10898-012-9875-6.

[19] Alfaki,M., D.Haugland (2013): A multi-commodity flow formulation for the generalized pooling problem, *Journal of Global Optimization*, 56, 3, pp.917–937, doi: 10.1007/s10898-012-9890-7.

[20] Borraz-Sánchez,C., D.Haugland (2013): Optimization methods for pipeline transportation of natural gas with variable specific gravity and compressibility, *TOP (an official journal of the Spanish Society of Statistics and Operations Research)*, 21, 3, pp.524-541, doi: 10.1007/s11750-011-0210-z.

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[25] Klein, A., D.Haugland (2019): Obstacle-aware optimization of offshore wind farm cable layouts, *Annals of Operations Research*, 272, 1–2, pp. 373–388, doi: 10.1007/s10479-017-2581-5.

[26] Gutierrez-Alcoba A., E.M.T.Hendrix, G.Ortega, E.E.Halvorsen-Weare, D.Haugland (2019): On offshore wind farm maintenance scheduling for decision support on vessel fleet composition, *European Journal of Operations Research*, 279, 1, pp. 124–131, doi: 10.1016/j.ejor.2019.04.020.

[27] Ivanova M., D.Haugland (2019): Integer programming formulations for the shared multicast tree problem, *Journal of Combinatorial Optimization*, 38, pp. 927–956, doi: 10.1007/s10878-019-00428-8.

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Book chapters and publications at conferences with full paper review

[29] Bjørstad,H., D.Haugland, R.Helming (1991): A stochastic model for gasoline blending, in M.Breton and G.Zaccour: *Advances in operations research in the oil and gas industry*, Editions Technip, Montréal, Canada, pp.21-32, ISBN 2-7108-0610-X.

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[61] Haugland, D. (2019): Pooling Problems with Single-Flow Constraints, In Darties,B., Poss,M.: *Network Optimization - 9th International Network Optimization Conference, OpenProceedings*, ISBN: 978-3-89318-079-0, Series ISSN: 2510-7437, pp. 95–100, 2019, doi: 10.5441/002/inoc.2019.18.

Talks at conferences

- Haugland,D. (1986): Sorting the possible righthand sides when finding the expected recourse cost. Presented at the International Conference on Stochastic Programming, Prague, Czechoslovakia, 1986.

- Haugland,D. (1987): Petroleum field optimization. Presented at the Fourth EURO Summer Institute, Turku, Finland, 1987.

- Haugland,D. (1988): Models for petroleum field exploitation. Presented at the 18th Annual International Mathematical Programming Conference (MUGI 18), Rome, Italy.

- Haugland,D. (1990): The contaminated minimum cost flow problem. Presented at Mathematical Programming in Decision an Planning, Sønderborg, Denmark.

- Haugland,D. (1991): Computing globally optimal solutions to pooling problems. Presented at the 21st Annual International Mathematical Programming Conference (MUGI 21), Budapest, Hungary, 1991.

- Haugland,D. (1993): Management problems in mobile telecommunications networks. Presented at SNF Telecommunication Research Conference, Solstrand, Norway, November 18-18, 1993.

- Haugland,D. (1994): Global optimization of quadratically constrained problems. Presented at the 15th International Symposium on Mathematical Programming, Ann Arbor, Michigan, USA, August 15-19, 1994.

- Haugland,D. (1996): Compressing data by shortest path methods. Presented at the International Symposium on Operations Research, Technical University of Braunschweig, Germany, September 3-6, 1996. Full paper in U.Derigs et al.(eds.): *Operations Research Proceedings 1996*, Springer, Berlin, Germany, pp.145-150, 1997.

- Haugland,D. (2000): Vector approximation by optimal basis selection. Presented at the Fourth Latin-Iberoamerican Conference on Operations Research, Mexico City, Mexico, September 4-8, 2000.

- Haugland,D. (2001): An edge-traversal algorithm for the subspace selection problem, Presented at the Seventh Meeting of the Nordic Section of the Mathematical Programming Society, Copenhagen, Denmark, November 15-17, 2001.

- Haugland,D. (2002): Node coloring with minimum edge weights. Presented at the International Symposium on Combinatorial Optimisation (CO'2002), Paris, France, April 8-10, 2002.

- Haugland,D. (2003): Local search methods for the subset selection problem with minimum unit norm. Presented at the 15th International Symposium on Mathematical Programming, Copenhagen, Denmark, August 18-22, 2003.

- Haugland,D. (2004): Heuristics for the subspace selection problem. Presented at the European Chapter of Combinatorial Optimization (ECCO XVII), Beirut, Lebanon, June 24-26, 2004.

- Haugland,D. (2004): Heuristics for the probabilistic dial-a-ride problem. Presented at the Ninth Meeting of the Nordic Section of the Mathematical Programming Society, Norrköping, Sweden, October 22-23, 2004.

- Haugland,D. (2005): Cut and Steiner tree formulations for minimum-energy problems in wireless ad hoc networks. Presented at Optimization Days, Montréal, Canada, May 9-11, 2005.

- Haugland,D. (2006): Approximation algorithms for the minimum energy broadcast problem. Presented at the Tenth Meeting of the Nordic Section of the Mathematical Programming Society, Copenhagen, Denmark, April 21-22, 2006.

- Haugland,D. (2007): A bidirectional greedy heuristic for the subspace selection problem. Presented at the International Workshop on Engineering Stochastic Local Search Algorithms, Brussels, Belgium, September 6-8, 2007.

- Haugland,D. (2007): Flow and cut models for the minimum energy multicast problem in ad hoc wireless networks. Presented at INFORMS Annual Meeting, Seattle, Washington, USA, November 4-7, 2007.

- Haugland,D. (2008): Models and solution methods for the pooling problem. Presented at Energy, Natural Resources and Environmental Economics Workshop, Bergen, Norway, May 15-16, 2008.

- Haugland,D. (2008): Neighborhoods and local search methods for subset selection problems. Presented at the 18th Triennial Conference of the International Federation of Operational Research Societies, Sandton, South Africa, July 14-18, 2008.

- Haugland,D. (2008): Improved time complexities of algorithms for the directional minimum energy broadcast problem. Presented at Modelling, Computation and Optimization in Information Systems and Management Sciences (MCO'08), Metz, France and Luxembourg, Luxembourg, September 8-10, 2008.

- Haugland,D. (2010): Methods for Flow Graph Selection in Integral Network Coding. Presented at the Sixth Advanced International Conference on Telecommunications, Barcelona, Spain, May 10-14, 2010.

- Haugland,D. (2010): Feasibility testing for dial-a-ride problems. Presented at the Sixth International Conference on Algorithmic Aspects in Information and Management, Weihai, China, July 19–21, 2010.

- Haugland,D. (2010): Solving the Pooling Problem with LMI Relaxations. Presented at Toulouse Global Optimization Workshop, Toulouse, France, August 31 – September 3, 2010.

- Haugland,D. (2011): The maximum flow problem with minimum lot sizes. Presented at the 2nd International Conference on Computational Logistics, Hamburg, Germany, September 19–22, 2011.

- Haugland,D. (2013): New lower and upper bounding techniques for the pooling problem. Presented at The Fourth International Conference on Continuous Optimization (ICCOPT 2013), Lisbon, Portugal, July 29 – August 1, 2013.

- Haugland,D. (2014): The Pooling Problem - Applications, Complexity and Solution Methods. Invited talk at *Applications of Optimization – Best Practice and Challenge, Sixth annual workshop of the Danish OR Society*, Copenhagen, June 2nd, 2014.

- Haugland,D. (2014): The Hardness of the Pooling Problem. Presented at Málaga Global Optimization Workshop, Málaga, Spain, September 1–4, 2014.

- Haugland,D. (2015): On a pooling problem with fixed network size, Presented at the 6th International Conference on Computational Logistics, Delft, The Netherlands, September 23–25, 2015.

- Haugland,D. (2017) Fast methods for the index tracking problem. Presented at the Annual International Conference of the German Operations Research Society (GOR), Berlin, Germany, September 6–8, 2017.

- Haugland, D. (2019): Pooling Problems with Single-Flow Constraints. Presented at the 9th International Network Optimization Conference, Avignon, France, June 12–14, 2019.