

IRINA GRIBKOVSKAIA

Born: 9th of May 1958, in Minsk, Belarus
Maiden name: Shmuratko

Citizenship: Norwegian, Belarusian
Family: single, one child

Profession: Professor of Quantitative Logistics
Address: Faculty of Logistics, Molde University College

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<https://scholar.google.com/citations?user=jHIMo6IAAAAJ>



Education

Professor of Quantitative Logistics, Molde University College – Specialized University in Logistics, Norway (2008)
PhD in Physics and Mathematics, Belarusian State University, Belarus (1997)
MSc in Applied Mathematics, Belarusian State University, Belarus (1980)

Work Experience

Professor of Quantitative Logistics at Molde University College – Specialized University in Logistics (since 2008)
Associate Professor of Quantitative Logistics at Molde University College (1999–2008)
Adjunct Professor at School of Business and Management of Technology, Belarusian State University (2006–2012)
Adjunct Professor at Faculty of Economics, Belarusian State University (2002–2006)
Intern at SINTEF Applied Mathematics (summer 2001)
Associate Professor at Faculty of Applied Mathematics, Belarusian State University (1997–1999)
Assistant Professor at Faculty of Applied Mathematics, Belarusian State University (1987–1997)
Research Scientist at Faculty of Applied Mathematics, Belarusian State University (1985–1987)
Research Fellow at Faculty of Applied Mathematics, Belarusian State University (1981–1985)
Probationer-lecturer at Faculty of Applied Mathematics, Belarusian State University (1980–1981)

Refereed Publications

[1] Kisialiou, Y., Gribkovskaia, I., Laporte, G. Robust supply vessel routing and scheduling, *Transportation Research Part C*, 90, 366–378, 2018.

- [2] Kisialiou, Y., Gribkovskaia, I., Laporte, G. The periodic supply vessel planning problem with flexible departure time and coupled vessels, *Computers and Operations Research*, 94, 52–64, 2018.
- [3] Norlund, E.K., Gribkovskaia, I. Environmental performance of speed optimization strategies in offshore supply vessel planning under weather uncertainty, *Transportation Research Part D*, 57C, 10–22, 2017.
- [4] Norlund, E.K., Gribkovskaia, I., Laporte, G. Supply vessel planning under cost, environment and robustness considerations, *Omega*, 57, 271–281, 2015.
- [5] Gribkovskaia, I., Kovalev, M., Halskau Ø. Minimizing takeoff and landing risk in helicopter pickup and delivery operations, *Omega*, 55, 73–80, 2015.
- [6] Norlund, E.K., Gribkovskaia, I. Modal split in offshore supply network under the objective of emissions minimization, *Transportation Research Part D*, 35, 160–174, 2015.
- [7] Kisialiou, Y., Gribkovskaia, I., Gribkovskaia, V. A simulation model for the assessment of the Northern Sea Route throughput. In: *NOFOMA 2015: Post Conference Proceedings*, Nordic Logistics Research Network, ISBN 978-82-7962-207-9, 175–189, 2015.
- [8] Qian, F., Strusevich, V., Gribkovskaia, I., Halskau, Ø. Minimization of passenger takeoff and landing risk in offshore helicopter transportation: models, approaches and analysis, *Omega*, 51, 93–106, 2015.
- [9] Sopot, E., Gribkovskaia, I. Routing of supply vessels to with deliveries and pickups of multiple commodities, *Procedia Computer Science*, 31, 910–917, 2014.
- [10] Maisiuk, Y., Gribkovskaia, I. Fleet sizing for offshore supply vessels with stochastic sailing and service times, *Procedia Computer Science*, 31, 939–948, 2014.
- [11] Norlund, E.K., Gribkovskaia, I. Reducing emissions through speed optimization in supply vessel operations, *Transportation Research Part D*, 23, 105–113, 2013.
- [12] Shyshou, A., Gribkovskaia, I., Laporte, G., Fagerholt, K. A large neighbourhood search heuristic for a periodic supply vessel planning problem arising in offshore oil and gas operations, *INFOR*, 50:4, 195–204, 2012.
- [13] Qian, F., Gribkovskaia, I., Laporte, G., Halskau, Ø. Passenger and pilot risk minimization in offshore helicopter transportation, *Omega*, 40:5, 584–593, 2012.
- [14] Qian, F., Gribkovskaia, I., Halskau, Ø. Helicopter routing in the Norwegian oil industry: Including safety concerns for passenger transport, *International Journal of Physical Distribution and Logistics Management*, 41:4, 401 – 415, 2011.
- [15] Shyshou, A., Gribkovskaia, I., Barceló, J. A simulation study of the fleet sizing problem arising in offshore anchor handling operations, *European Journal of Operational Research*, 203, 230–240, 2010.
- [16] Gribkovskaia, I., Kovalev, S., Werner, F. Batching for work and rework processes on dedicated facilities to minimize the makespan, *Omega*, 38, 522–527, 2010.
- [17] Hoff, A., Gribkovskaia, I., Laporte, G., Løkketangen, A. Lasso solution strategies for the vehicle routing problem with pickups and deliveries, *European Journal of Operational Research*, 192, 755–766, 2009.
- [18] Billaut, J.-C., Gribkovskaia, I.V., Strusevich, V.A. An improved approximation algorithm for the two-machine open shop scheduling problem with family setup times, *IIE Transactions*, 40, 478–493, 2008.
- [19] Gribkovskaia, I., Laporte, G. One-to-many-to-one single vehicle pickup and delivery problems, In B.L. Golden, S. Raghavan and E.A. Wasil, editors, *The Vehicle Routing Problem: Latest Advances and Challenges*, Springer, Boston, 359–377, 2008.
- [20] Gribkovskaia, I., Laporte, G., Shlopak, A. A tabu search heuristic for a routing problem arising in the servicing offshore oil and gas platforms, *Journal of the Operational Research Society*, 59, 1449–1559, 2008.
- [21] Gribkovskaia, I., Laporte, G., Shyshou, A. The single vehicle routing problem with deliveries and selective pickups, *Computers and Operations Research*, 35, 2908–2924, 2007.

- [22] Gribkovskaia, I., Halskau, Ø. sr., Laporte, G., Vlcek, M. General solutions to the single vehicle routing problem with pickups and deliveries, *European Journal of Operational Research*, 180, 568–584, 2007.
- [23] Berbeglia, G., Cordeau, J-F., Gribkovskaia, I., Laporte, G. Static pickup and delivery problems: a classification scheme and survey, *TOP (Journal of the Spanish Society of Statistics and Operations Research)*, 15: 1–31 (discussions: 32–44; rejoinder: 45–47), 2007.
- [24] Gribkovskaia, I., Halskau, Ø. sr., Laporte, G. The bridges of Königsberg – A historical perspective, *Networks*, 49, 199–203, 2007.
- [25] Aas, B., Gribkovskaia, I., Halskau Ø. sr., Shlopak, A. Routing of supply vessels to petroleum installations, *International Journal of Physical Distribution and Logistics Management*, 37:2, 164–179, 2007.
- [26] Gribkovskaia, I.V., Lee, C.-Y., Strusevich, V.A., de Werra, D. Three is easy, two is hard: open shop sum-batch scheduling problem refined, *Operations Research Letters*, 34:4, 459–464, 2006.
- [27] Gribkovskaia, I., Gullberg, B.O. , Hovden, K.J., Wallace, S.W. Optimization model for a livestock collection problem, *International Journal of Physical Distribution and Logistics Management*, 36:2, 136–152, 2006.
- [28] Gribkovskaya, I. V., Kalinin, A. I. Asymptotically optimal controller for a linear dynamic system that contains derivatives with parameters of different orders of smallness, *Journal of Computer and Systems Sciences International*, 36:4, 573–577, 1997.
- [29] Gribkovskaya, I. V., Kalinin, A. I. Asymptotic optimization of linear dynamic systems containing parameters of different orders of smallness in the derivatives, *Vestnik Byelorusskogo Universiteta*, 3, 54–57, 1996 (in Russian).
- [30] Gribkovskaya, I.V., Kalinin, A.I. Asymptotic behaviour of a solution to a time-optimal problem for a linear singularly perturbed system with distinct small parameters attached to derivatives, *Differential Equations*, 31:8, 1219–1228, 1995.
- [31] Gribkovskaya, I.V., Kalinin, A.I. Asymptotic optimization of a linear singularly perturbed system containing parameters of different orders of smallness in the derivatives, *Computational Mathematics and Mathematical Physics*, 35:9, 1041–1051, 1995.
- [32] Gribkovskaya, I.V. A dual method for solving a perturbed problem of linear programming, In *Current problems in the theory of dynamical control systems*, Nauka i Tekhnika, Minsk, 277–285, 1989 (in Russian).
- [33] Gribkovskaya, I.V. A method for solving a special parametrical generalized transportation problem, *Constructive theory of extreme problems*, Universitetskoe, Minsk, 44–53, 1984 (in Russian).

Theses

- [34] I. V. Gribkovskaya. Asymptotic optimization of linear dynamic systems containing parameters of different orders of smallness in the derivatives. PhD Thesis. Byelarussian State University, Belarus, 1997. Parts of this material can be found in [28–31].
- [35] I.V. Shmuratko. Perturbation methods for solution of general linear programming problem. MSc Thesis. Byelarussian State University, Belarus, 1980.

Papers in Refereed Proceedings

- [36] Maisiuk, Y., Gribkovskaia, I. Strategic fleet sizing for offshore supply vessels with stochastic service time. In *Proceedings of the 26th Annual Conference of the Nordic research Network – NOFOMA 2014*, Copenhagen, Denmark, 48–62, 2014.
- [37] Gribkovskaia, I., Kurhuzava, L., Sviridova, Y. Development of routing planning tools for a distribution company. In *Proceedings of the 23d Annual NOFOMA Conference*, Harstad, Norway, 405–421, 2011.
- [38] Qian, F., Gribkovskaia, I., Halskau, Ø. Helicopter routing in the Norwegian oil industry: Including safety concerns for passenger transport . In *Proceedings of the 22nd NOFOMA Conference*, Kolding, Denmark, 2010.

- [39] Bakhrankova, K, Gribkovskaia, I., Haugen, K. Production planning in continuous process industries. In Proceedings of the 19th Annual Conference on Logistics Research – NOFOMA 2007, Reykjavik, Iceland, 69–84, 2007.
- [40] Aas, B., Gribkovskaia, I., Halskau Ø. sr., Shlopak, A. Routing of supply vessels serving oil and gas installations in the Norwegian sea. In M. Jahre, editor, Logistics in the New Valley, Proceedings of the 18th Annual Conference for Nordic Researchers in Logistics, NOFOMA, Oslo, Norway, 2006.
- [41] Gribkovskaia, I., Gullberg, B.O., Hovden, K.J., Wallace, S.W. Optimization model for a livestock collection problem, Proceedings of the 17th Annual NOFOMA Conference, Copenhagen, Denmark, 365–381, 2005.
- [42] Gribkovskaia, I., Halskau, Ø., Haakonsen, J.K., Richstad, O.K. Effect of time windows on distribution costs. In Challenging Boundaries with Logistics, Proceedings of the 16th Annual Conference for Nordic Researches in Logistics – NOFOMA 2004, Linköping, Sweden, 665–678, 2004.
- [43] Gribkovskaia, I., Halskau, Ø., Lium, A.-G. Distribution within the Norwegian cooperative meat industry. In Proceedings of the 14th Annual Conference for Nordic Researches in Logistics – NOFOMA 2002, Trondheim, Norway, 301–318, 2002.
- [44] Buvik, A., Gribkovskaia, I. Specific assets and hierarchical governance in manufacturer-supplier relationships: the moderating effect of bargaining power on buyer influence in industrial business-to-business relationships. In Proceedings of the 31th EMAC Conference, Braga, Portugal, 6–21, 2002.
- [45] Gribkovskaia, I., Halskau, Ø., Myklebost, K.N.B. Models for pick-up and deliveries from depots with lasso solutions. In Proceedings of the 13th Annual Conference on Logistics Research – NOFOMA 2001, Reykjavik, Iceland, Chalmers University of Technology, Göteborg, Sweden, 279–293, 2001.
- [46] Gribkovskaia, I. Transshipment problems with flow perturbations. In Proceedings of the 12th NOFOMA Conference, Aarhus, Denmark, 1–12, 2000.

Conference Presentations

- Flexible and robust supply vessels routing and scheduling. Operations Research and Parameterized Complexity Workshop, Bergen, Norway, September 17–21, 2018.
- Robust supply vessel planning under weather and demand uncertainty. EURO 2018, Valencia, Spain, July 8–11, 2018 (with Y. Kisialiou).
- Robust supply vessel planning with uncertain demand. Logistics Analytics 2018, Minsk, Belarus, June 18–19, 2018 (with Y. Kisialiou and E. K. Norlund).
- Construction of robust supply vessel schedules under uncertain weather conditions. Logistics Analytics 2018, Minsk, Belarus, June 18–19, 2018 (with Y. Maisiuk).
- Flexible and robust supply vessel routing and scheduling. ROUTE 2018, Snekkersten, Denmark, May 27–30, 2018.
- Heuristic based approach for generation of cost-effective and robust supply vessel schedules. LOGMS 2017, Bergen, Norway, August 23–26, 2017 (with Y. Kisialiou).
- Evaluation of methods for construction of robust supply vessel schedules with discrete-event simulation. VeRoLog 2017, Amsterdam, Nederland, July 12–17, 2017 (with Y. Maisiuk).
- Robust supply vessel planning with heuristics. VeRoLog 2016, Nantes, France, June 6–8, 2016 (with Y. Kisialiou).
- Green and robust offshore supply vessels periodic routing and scheduling. ROUTE 2016, Rambouillet, France, June 1–4, 2016.
- A heuristic for the supply vessel planning problem with flexible departures. VeRoLog 2015, Vienna, Austria, June 7–10, 2015 (with Y. Kisialiou).
- Supply vessel planning under cost, environmental and robustness considerations. Odysseus 2015, Ajaccio, France, May 31–June 5, 2015 (with E.K Norlind and G. Laporte).
- Recourse strategies in weather dependent supply vessel operations. Odysseus 2015, Ajaccio, France, May 31–June 5, 2015 (with Y. Mailiuk).

A simulation model for the assessment of the Northern Sea Route throughput. NOFOMA 2015, Molde, Norway, June 3–5, 2015 (with Y. Kisialiou).

Routing and fleet sizing for offshore supply vessels. ROUTE 2014, Snekkersten, Denmark, June 1–4, 2014. 15. Fleet sizing for offshore supply vessels with stochastic sailing and service times. ITQM 2014, Moscow, Russia, June 3–5, 2014 (with Y. Maisiuk).

Routing of supply vessels to with deliveries and pickups of multiple commodities. ITQM 2014, Moscow, Russia, June 3–5, 2014 (with E. Sopot).

A simulation model for evaluation of supply vessel schedule robustness under demand uncertainty. NOFOMA 2014, Copenhagen, Denmark, June 11–13, 2014 (with E. Sopot).

Strategic fleet sizing for offshore supply vessels with stochastic service time. NOFOMA 2014, Copenhagen, Denmark, June 11–13, 2014 (with Y. Maisiuk).

Robust supply vessel planning with speed optimization. IFORS XX, Barcelona, Spain, July 13–18, 2014 (with E. K. Norlund).

Modelling of supply vessel operations with simulation. IFORS XX, Barcelona, Spain, July 13–18, 2014 (with Y. Maisiuk).

Evaluating robustness of speed optimized supply vessel schedules. IFORS XX, Barcelona, Spain, July 13–18, 2014 (with A. Hubin and E. K. Norlund).

Modal split in offshore upstream supply chain under the objective of emissions minimization. IFORS XX, Barcelona, Spain, July 13–18, 2014 (with E. K. Norlund).

Analysis of logistics capabilities for gas transportation in the Arctic. IFORS XX, Barcelona, Spain, July 13–18, 2014 (with Y. Kisialiou and Y. Scherbanin).

Vehicle routing problems with deliveries and pickups of multiple commodities. LOT 2014, Molde, Norway, September 1–2, 2014 (with E. Sopot).

Fleet sizing for offshore supply vessels. INOC 2013, Costa Adeje, Tenerife, Spain, May 20–22, 2013 (with Y. Maisiuk).

Passenger and pilot risk minimization in offshore helicopter transportation. Odysseus 2012, Mykonos, Greece, May 21–25, 2012 (with F.Qian, G. Laporte and Ø. Halskau).

Reducing emissions in offshore supply vessel planning by speed optimization. Odysseus 2012, Mykonos, Greece, May 21–25, 2012 (with E. K. Norlund).

On routing and risk minimization in offshore helicopter transportation. EURO XXY, Vilnius, Lithuania, July 8–11, 2012 (with Ø.Halskau and F.Qian).

A simulation study of the fleet sizing problem for offshore supply vessels. EURO XXY, Vilnius, Lithuania, July 8–11, 2012 (with Y. Maisiuk).

Routing of supply vessels to offshore installations with deliveries and pickups of multiple commodities. EURO XXY, Vilnius, Lithuania, July 8–11, 2012 (with E. Sopot).

Vehicle routing problems arising in the supply of offshore oil platforms. ROUTE 2011, Sitges, Spain, May 31–June 3, 2011.

Development of routing planning tools for a distribution company. NOFOMA 2011, Harstad, Norway, June 9–10, 2011.

A periodic multi-base supply vessel planning problem, ALIO INFORMS 2010, Buenos Aires, Argentina, June 6–9, 2010 (with A. Shyshou).

A tabu search heuristic for offshore helicopter routing problem with focus on passenger safety. ALIO INFORMS 2010, Buenos Aires, Argentina, June 6–9, 2010 (with F.Qian, G. Laporte and Ø. Halskau).

Helicopter routing in the Norwegian oil industry: Including safety concerns for passenger transport. NOFOMA 2010, Kolding, Denmark, June 10–11, 2010 (with F. Qian and Ø. Halskau).

A large neighbourhood search heuristic for a periodic supply vessel planning problem arising in offshore oil and gas operations, TRISTAN VII, Tromsø, Norway, June 20–25, 2010 (with A. Shyshou).

Heuristics for a periodic supply vessel planning problem arising in offshore oil and gas operations. NOW 2010, Ajaccio, France, August 23–25, 2010 (with A. Shyshou and G. Laporte).

- A simulation study of the fleet sizing problem arising in offshore anchor handling operations. Optimization Days 2009, Montreal, Canada, May 4–6, 2009 (with A. Shyshou).
- A simulation model for the fleet sizing problem arising in offshore anchor handling operations. ODYSSEUS 2009, Cesme, Turkey, May 26–29, 2009 (with A. Shyshou).
- Solving a family of pickup and delivery vehicle routing problems arising in reverse logistics and the supply of oil and gas platforms. ECCO XXI Dubrovnik, Croatia, May 29–31, 2008.
- The single vehicle routing problem with deliveries and selected pickups. ECCO XX, Lapnaca, Cyprus, May 24–26, 2007 (with A. Shyshou and G. Laporte).
- Production planning in continuous process industries. NOFOMA 2007, Reykjavik, Iceland, June 10–11, 2007 (with K. Bakhrankova and K. Haugen).
- Single vehicle pickup and delivery problem with capacitated customers, GO VI, Cademario, Switzerland, August 15–18, 2007.
- Solving a family of single vehicle pickup and delivery problems by tabu search, INFORMS 2007 Annual Meeting, Seattle, USA, November 3–6, 2007.
- Routing of supply vessels serving oil and gas installations in the Norwegian sea. NOFOMA 2006, Oslo, Norway, June 8–9, 2006 (with B. Aas, Ø. Halskau Ø. sr. and A. Shlopak).
- General solutions to the single vehicle routing problem with pickups and deliveries. ODYSSEUS 2006, Altea, Spain, May 23–26, 2006.
- Heuristic algorithms for the traveling salesman problem with pickup and delivery demands and non-simultaneous services. ECCO XVIII, Minsk, Belarus, May 26–28, 2005.
- Optimization model for a livestock collection problem, NOFOMA 2005, Copenhagen, Denmark, June 8–10, 2005 (with B.O. Gullberg, K.J. Hovden, and S.W. Wallace).
- Pick-up and deliveries from a depot with capacity restrictions at the customers. TraLog 2004, Molde, Norway, August 25–27, 2004.
- Effect of time windows on distribution costs. NOFOMA 2004, Linköping, Sweden, June 7–8, 2004 (with Ø. Halskau, J.K. Haakonsen and O.K. Richstad).
- Heuristics for the pick-up and delivery problem with one vehicle and non-Hamiltonian routes, ECCO XVI, Molde, Norway, June 5–7, 2003.
- Heuristics for pickup and delivery problem allowing non-simultaneous services, Optimization Days 2003, Montreal, Canada, May 5–7, 2003.
- Two exact models for pick-up and deliveries from depots with different sub-graphs in the solution, CO'02, Paris, France, April 8–10, 2002.
- Distribution within the Norwegian co-operative meat industry. NOFOMA 2002, Trondheim, Norway, June 13–14, 2002 (with Ø. Halskau and A.-G. Lium).
- Specific assets and hierarchical governance in manufacturer-supplier relationships: the moderating effect of bargaining power on buyer influence in industrial business-to-business relationships. EMAC 2002, Braga, Portugal, May 28–31, 2002 (with A. Buvik).
- Pickup and deliveries from depots with different sub-graphs in the solution, IFORS 2002, Edinburgh, Scotland, July 8–12, 2002 (with Ø. Halskau).
- Models for pick-up and deliveries from depots with lasso solutions. NOFOMA 2001, Reykjavik, Iceland, June 14–15, 2001 (with Ø. Halskau and K.B. Myklebost).
- An exact model for pick-up and deliveries from depots with different sub-graphs in the solution, Nordic MPS'01, Copenhagen, Denmark, November 15–18, 2001 (with Ø. Halskau).
- Transshipment problems with flow perturbations. NOFOMA 2000, Aarhus, Denmark, June 14–15, 2000.
- Asymptotic optimization of linear singular perturbed dynamic systems containing parameters of different orders of smallness in the derivatives. International conference on modelling and systems investigation, Kiev, Ukraine, May 13–15, 1997.
- Asymptotic optimization of linear dynamic systems containing parameters of different orders of smallness in the derivatives, 3d International Workshop on nonsmooth and discontinuous problems of control, optimization and applications, St. Petersburg, Russia, May 28–30, 1995.

Other Presentations

- Single vehicle pickup and delivery problem with capacitated customers. Department of Statistics and Operations Research, Universitat Politècnica de Catalunya, Barcelona, Spain 2007.
- Routing of supply vessels to offshore oil and gas platforms. Faculty of Business Administration, Memorial University of Newfoundland, St. John's, Canada, 2007.
- A simulation study of the fleet sizing problem arising in offshore anchor handling operations. Department of Statistics and Operations Research, Universitat Politècnica de Catalunya, Barcelona, Spain, 2009.
- Vehicle routing problems with pickups and deliveries. Department of Statistics and Operations Research, Universitat Politècnica de Catalunya, Barcelona, Spain, December 2011.
- Offshore oil and gas logistics in Norway. Petrobras Research Center – CENPES, Rio de Janeiro, Brazil, March 2011.
- Supply vessel planning. Petrobras Operations Research Group, Rio de Janeiro, Brazil, March 2011.
- Upstream offshore oil and gas logistics. Nexo – Center for Excellence in Optimization, Pontifical Catholic University of Rio de Janeiro (PUC-Rio), Rio de Janeiro, Brazil, March 2011.
- Vehicle routing and fleet sizing problems arising in servicing offshore oil and gas installations. Department of Statistics, Operations Research and Computer Science of Faculty of Mathematics, University of La Laguna, San Cristobal de La Laguna, Spain, May 2013.
- Green and robust supply vessel planning with simulation-optimization. Department of Statistics and Operations Research, Universitat Politècnica de Catalunya, Barcelona, Spain, March 2014.
- Modelling supply vessel schedules with simulation: fleet sizing and schedule robustness. Department of Informatics, Universitat Politècnica de Catalunya, Barcelona, Spain, March 2014.
- Green supply vessel operations. CIRRELT, Montreal, Canada, May 2014.
- Vehicle routing and scheduling in oil and gas offshore operations. CENIT R&D seminar, Universitat Politècnica de Catalunya, Barcelona, Spain, June 2015.
- Environmental issues in oil and gas upstream offshore logistics. Department of Business and Management Science, NHH, Bergen, Norway, October 2015.
- Green, robust and cost-efficient supply vessel planning. Department of Business and Management Science, NHH, Bergen, Norway, November 2015.
- Optimization in upstream oil and gas logistics. INTRART Oil and Gas Production Optimization Conference, Petrobras Research Center – CENPES, Rio de Janeiro, Brazil, May 2016.
- Offshore logistics. Summer School in Arctic Logistics 2017. Gubkin Russian State University of Oil and Gas, Moscow, Russia, July 2017.
- Supply vessel planning in upstream oil and gas offshore logistics. Barcelona School of Nautical Studies, Universitat Politècnica de Catalunya, Barcelona, Spain, April 2018.
- Decision support tools for supply vessel planning in offshore oil and gas logistics. Department of Statistics and Operations Research, Universitat Politècnica de Catalunya, Barcelona, Spain, April 2018.
- Offshore logistics. Summer School in Arctic Logistics 2018. Gubkin Russian State University of Oil and Gas, Moscow, Russia, August 2018.

Selected Teaching Experience

- Mathematical Modelling in Logistics, LOG716, Molde University College, Belarusian State University Minsk, Belarus (Master level, English and Norwegian).
- Vehicle Routing with Heuristics, LOG820, Molde University College, Belarusian State University Minsk, Belarus (Master level, English and Norwegian).
- Network Logistics, LOG731, Molde University College (Master level, English).
- Integer Optimization Models in Logistics, LOG904–115, Molde University College (Master level, English).

Offshore Upstream Logistics, LOG904–116, Molde University College (Master level, English).

Production and Inventory Management, LOG705, Molde University College, Belarusian State University, Minsk, Belarus, Suzhou University of Science and Technology, China (Master level, English).

Production Planning and Control/Operation Management, BUS432, NHH (Master level, Norwegian).

Economic Decision Models, ENE420, NHH (Master level, Norwegian).

Operations and Inventory Management, ORG948, University of Agder (Master level, Norwegian).

Routing Planning from a Depot, Statoil (Master level, Norwegian).

Upstream Offshore Logistics, Petrobras Corporate University (Master level, English).

International Logistics, Belarusian State University (Master level, English).

Distribution Planning, LOG530, Molde University College (Bachelor level, English, Norwegian).

Production and Inventory Management, LOG515, Molde University College (Bachelor level, English).

Management Models in Logistics, LOG501, Molde University College (Bachelor level, Norwegian).

Case Seminars in Logistics, LOG301, Molde University College (Bachelor level, English).

Introduction to Logistics, LOG300, Molde University College, Belarusian State University (Bachelor level, English).

Operations Research, BØK430, Molde University College (Bachelor level, Norwegian).

Introduction to Mathematics, MK101, Molde University College (Bachelor level, Norwegian).

Optimization Methods, Belarusian State University (Bachelor level, Russian).

Optimization of Linear Models in Economics, Belarusian State University (Master level, Russian).

Maximum Principle in Control Theory, Belarusian State University (Master level, Russian).

Dynamic Programming, Belarusian State University (Master level, Russian).

Educational Training

Spring School in Transportation, HEC Montreal, Canada, May 2004.

International School on Location Theory, UPC, Barcelona, Spain, April 2006.

Supervised (and Co-supervised) PhD Students

Yauheni Kisialiou, Offshore petroleum logistics (main supervisor, since 2014).

Yury Redutskiy, Strategic planning problems for smart solutions in oil and gas industry (co-supervisor, 2013–2017).

Yauhen Maisiuk, Supply vessel fleet sizing and routing under weather uncertainty (main supervisor, since 2012).

Ellen Karoline Norlund, Green transportation planning in offshore supply (main supervisor, 2011–2015).

Eugen Sopot, Algorithms for routing of supply vessels with multiple commodities (main supervisor, since 2011).

Fubin Qian, Passenger risk minimization in helicopter transportation for the offshore petroleum industry (main supervisor, 2008–2012).

Krystyna Bakhrankova, Production planning in continuous process industries: theoretical and optimization issues (co-supervisor, 2007–2010).

Alexander. Shyshou, Vessel planning in offshore oil and gas operations (main supervisor, 2006–2010).

Supervised (and Co-supervised) MSc Students

- Katerina Moskaleva and Tatsiana Pekarskaya, Supply vessel planning problem with demand uncertainty, 2018.
- Andreas Kleiven and Odin Dahlen, Horizontal cooperation in upstream logistics material supply on the Norwwegian Continental Shelf: a conceptual framework, 2017.
- Rushan Almiyashev, Adaptive large neighborhood search heuristic for periodic supply vessel planning problem, 2016.
- Alina Kovalenko and Maxim Panfiliv, Delivery planning for the liquefied hydrocarbon gas distribution company, 2016.
- Elena Marder, Heuristic for robust supply vessel planning, 2016.
- Aliaksei Liasnoi, Periodic supply vessel planning with flexible departures and couples vessels, 2015.
- Maksim Kapranov, Development of decision support system for evaluation of speed optimization strategies in supply vessel planning under weather uncertainty, 2014.
- Aliaksandr Hubin, Evaluation of supply vessel schedules robustness with a posteriori improvements, 2014.
- Anastasiya Dzeravianka, The use of the Northern Sea Route for the transportation of gas from Norway to Asia, 2014.
- Elena Volikova, Speed optimization in supply vessel planning under weather uncertainty, 2013.
- Juliane Rother, Mathematical modelling of a route sequencing: problem in fish feed supply, 2013.
- Elena Bezlepkinina and Olga Bosomykina, Simulation model for supply vessels fleet sizing with wave-dependent speed loss, 2013.
- Yevgheni Petkevich, Algorithms for takeoff and landing risk minimization in offshore helicopter transportation, 2013.
- Isa Merete Sørli, Evaluation of robustness of supply vessel sailing plans with simulation, 2013.
- Victor Rubinat Hernandez, Generation of supply vessels schedules with models, 2013.
- Mikhail Anfimau, Algorithms for construction of multi-base supply vessel schedules, 2013.
- Darya Bukhautsova, Multi-base supply vessel planning with mathematical models, 2013.
- Siarhei Babei, Creation of intermediate facilities in the distribution network of the company "ALIDI-West" as the source of transportation costs reduction, 2013.
- Olga Kudina, Periodic vehicle routing for a Belarusian polymer film producer, 2013.
- Elena Nikitina, Pickup and delivery routing for a case company, 2013.
- Siarhei Herasimenka, Periodic routing planning with locally outsourced operations, 2013.
- Yauheni Kisialiou, Periodic vehicle routing planning with partial outsourcing of deliveries, 2013.
- Yuriy Golikov, Total costs reduction in the order-picking process at the warehouse, 2013.
- Aliaksandr Paulau, Development of tools for construction of flexible routes for the distribution company, 2012.
- Pavel Aliakseyeu, Simulation model for evaluation of reaction strategy on stochastic factors in platform supply vessel fleet sizing problem, 2012.
- Tatsiana Barysavets and Mikalai Mikhailau, Emissions reduction in offshore supply vessels planning, 2012.
- Katherine Lepushenka, Modeling multi- and intermodal transportation network for shipment of peat from Belarus to The Netherlands, 2012.
- Anne Stine Volsdal, Base-to-base transport: model split and emissions analyses, 2012.
- Vahid Abdollahi, Fuel consumption reduction in offshore supply vessel planning, 2012.
- Palina Krasouskaya, Vehicle routing planning for joint venture "Westintertrans", 2011.
- Katsiaryna Panamarenka, Minimization of emissions in periodic supply vessel planning through speed optimization, 2011.
- Lidziya Kurhuzava and Yuliya Svirydava, Vehicle routing planning for foreign enterprise "Hordex", 2010.

- Yauhen Maisiuk, Development of a generic dynamic discounted cash flow analysis tool for investment in the GasMat Park, 2009.
- Sergey Kovalev, Multi-product batching and scheduling with buffered rework, 2009.
- Tatsiana Aneichyk, Simulation model for strategic fleet sizing and operational planning on off-shore supply vessels operations, 2009.
- Emrah Arica and Milena Vuvunikian, Optimization models for the integrated steel plant within the Gas-Mat Research Project, 2009.
- Siarhei Tsitou, Comparison of metaheuristics for the single vehicle pickup and delivery routing problem with multiple commodities, 2009.
- Katsiaryna Volkava, Distribution network design for Belarusian pharmaceutical company, 2009.
- Arne Gjengstø and Sigurd Vaksvik, Single vehicle pickup and delivery problem with multiple commodities and visit windows, 2008.
- Sadi Öztürk and Eirik-Andre Morkemo, Fleet size planning for anchor handling vessels at StatoilHydro, 2008.
- Eugen Sopot, Tabu search heuristic for the multiple vehicle routing problem with pickups and deliveries, 2008.
- Ahmed Zouari and Arne Borch Akselvoll, Multi-commodity pickup and delivery supply vessel routing for Statoil: analysis and modelling, 2007.
- Solveig Lena Myrvold Arhaug, Analysis of capacity utilization of supply vessels serving oil and gas installations from Mongstadbase, 2007.
- Zhen Zhang, A tabu search heuristic for the vehicle routing problem with constraints on pickup and delivery visits, 2007.
- Krystsina Bakhrankova, Production planning in continuous manufacturing of non-discrete items: methodical analysis and optimization issues, 2007.
- Alexander Shlopak, Pickup and delivery single vehicle routing problem with capacitated customers, 2006.
- Aliaksandr Shyshou, A single vehicle routing problem with deliveries and selective pickups, 2006.
- Nils Olav Berntsen and Trond Malmo, The livestock collection problem: a case study of Gilde Hed-Opp, 2005.
- Martin Vlček, Heuristic algorithms for the single vehicle pickup and delivery problem and non-simultaneous services, 2005.
- Bjørn Olav Gullberg and arl Johan Hovden, Matematisk modell for inntransport av dyr til slakteri, 2004.
- Jan Kolbjørn Haakonsen and Ole Kristian Richstad, En analyse av distribusjonskostnader i Linjegods AS og transportkjøpers betalingsvillighet ved forskjellige krav til leveringservice, 2003.
- Arnt-Gunner Lium, Forbedring av Gildes interne transport, 2002.
- Kim Bygge Myklebost, Ruteplanlegging med lasso, 2001.

PhD Evaluation Committee Work

- Markus Brachner, Offshore emergency preparedness logistics in the Arctic region, Molde University College, Norway, forthcoming.
- Eirik Fernandez Cuesta, Optimization of offshore oil and gas logistics, NTNU, IØT, Trondheim, Norway, 2018.
- Viktoryia Buhayenko, Determining dynamic discounts for supply chain coordination, BSS, Department of Economics and Business Economics, Aarhus University, Denmark, 2017.
- Elin Espeland Halvorsen-Weare, Maritime fleet planning and optimization under uncertainty, NTNU, IØT, Trondheim, Norway, 2012.
- Feifei Qin, Essays on efficient operational strategy of urban rail transit, Molde University College, Norway, 2012.
- Hajnalka Vaagen, Product variety under uncertainty, Molde University College, Norway, 2009.

Selected Assignments as Reviewer of Scientific Journals Papers

Operations Research, European Journal of Operational Research, Computers & Operations Research, Journal of Operational Research Society, Networks, Transportation Science, Journal of Heuristics, Journal of Scheduling, EURO Journal on Computational Optimization, Transportation Research Part D, Omega, International Journal of Production Research, Maritime Policy and Management, International Journal of Transportation, Biosystems Engineering, International Journal of Physical Distribution and Logistics Management, etc.

Refereed material for a book on vehicle routing and a book on energy economics.

Guest-editor for a special issue of Brazilian Journal Operational Research.

Research visits

Universitat Politècnica de Catalunya (UPC), Department of Statistics and Operations Research, Barcelona, Spain. Visiting Professor Jaume Barcelo, 2007 (a week), 2008 (a week), 2009 (a week), 2011 (a week), 2014 (three weeks), 2015 (a week), 2016 (four month sabbatical), 2018 (a week).

University of Montreal, Canada, CIRRELT. Visiting Professor Gilbert Laporte, 2003 (a week), 2004 (two weeks), 2014 (four weeks), 2016 (two months sabbatical).

Canada Research Chair in Distribution Management, HEC Montréal, Canada, Visiting Professor Gilbert Laporte, 2005 (a week), 2006 (two weeks), 2009 (a week).

United Institute of Informatics Problems, National Academy of Science, Minsk, Belarus. Visiting Professor Mikhail Kovalyov, 2013 (a week), 2014 (two weeks), 2015 (two month sabbatical), 2016 (two month sabbatical)

Research University Higher School of Economics (HSE), Laboratory of Decision Choice and Analysis, Moscow, Russia. Visiting Professor Fuad Aleskerov, 2015, 2016, 2017 (three-five days).

Gubkin Russian State University of Oil and Gas, Department of Logistics. Visiting Professor Yury Shcherbanin, 2014 (a week).

Institute for System Analysis of Federal Research Center Computer Science and Control of Russian Academy of Sciences, Moscow, Russia. Visiting Professor Mikhail Dmitriev in 2015, 2016, 2017 (three-five days).

Universitat La Laguna, Tenerife, Spain, Department of Operations Research. Visiting Professor Juan Jose Salazar, 2013 (a week).

Memorial University of Newfoundland, Faculty of Business Administration, St. John's, Canada. Visiting Professor Wieslaw Kubiak, 2007 (one week).

University of Greenwich, School of Computing and Mathematical Sciences, London, UK. Visiting Professor Vitaly Strusevich in 2004 (a week).

Research projects and cooperation

Project coordinator of the Norwegian-Brazilian UTFORSK project on Norway-Brazil cooperation in oil, gas and renewable energy logistics (OGREL) (Molde University College, PUC-Rio, Equinor, Petrobras), supported by the Norwegian Centre for International Cooperation in Higher Education. Total budget of NOK 2.0M, 2018–2021.

Project coordinator of the Norwegian-Russian UTFORSK project on logistical and environmental management of natural resources development and transportation in the Arctic area (Arctic Logistics) (Molde University College, Gubkin Russian State University of Oil and Gas, Research University Higher School of Economics, Murmansk Technical University, Institute for System Analysis of Federal Research Center Computer Science and Control of Russian Academy of Sciences, Sintef Ocean, Møreforskning), supported by the Norwegian Centre for International Cooperation in Higher Education. Total budget of NOK 2.0M, 2017–2020.

Local project manager of MOLO project on development of tools for tactical planning of supply vessels schedules, supported by the Research Council of Norway (Statoil, Marintek, NTNU, Molde University College). Total budget of NOK 6.3M, 2015–2017.

Leader of the continuous cooperation with energy companies (Equinor, BP, Petrobras) on the developments of optimization and simulation models and algorithms for offshore logistics planning, ongoing since 2007, 25 MSc theses and 3 PhD theses supervised, supported by energy companies and Oil, Gas and Energy research group funding from Molde University College.

Project manager of the project on supply chain management for oil and gas industry in Western Norway, supported by Research Fund in Western Norway, 2006.

Member of the project group on distribution network design and development of optimization models for hospital drug-stores, supported by Apoteket, 2004.

Member of the project group on the formulation the livestock collection problem and development of optimization methods for Norwegian cooperative meat industry, 3 MSc theses, supported by Gilde company, 2001–2003.

Educational Projects

Project coordinator of international academic collaboration project within Eurasia program on development of multidisciplinary Norwegian-Belarusian study program in Logistics Analytics promoting Bologna process reforms (Molde University College, Belarusian State University, United Institute of Informatics Problems of the National Academy of Sciences of Belarus, Taras Shevchenko National University of Kyiv, Academy of Economic Studies of Moldova), funded by the Norwegian Centre for International Cooperation in Higher Education. Total budget of NOK 5.8M (2016–2019).

Project coordinator of international academic collaboration project within Russia program on development of a joint Norwegian-Russian master program in petroleum logistics (Molde University College, Gubkin Russian State University of Oil and Gas, National Research University Higher School of Economics, St.Petersburg State University), funded by the Norwegian Centre for International Cooperation in Higher Education. Total budget of NOK 2.73M (2013–2016).

Project coordinator of international academic collaboration project within Russia Program on cooperation between Molde University College and Russian Universities in development of joint master study in petroleum logistics ((Molde University College, National Research University Higher School of Economics, St.Petersburg State University, Gubkin Russian State University of Oil and Gas), funded by the Norwegian Centre for International Cooperation in Higher Education. Total budget of NOK 0.3M (2012).

Project coordinator of international academic collaboration project within Eurasia program on Norway-Belarus cooperation in promoting Bologna process standards for higher education within quantitative logistics and information systems in logistics (Molde University College, Belarusian State University, United Institute of Informatics Problems of the National Academy of Sciences of Belarus), funded by the Norwegian Centre for International Cooperation in Higher Education. Total budget of NOK 0.1M (2015).

Project coordinator of Norwegian-Belarusian joint MSc study project in logistics (to-diploma) (Molde University College, School of Business and Management of Technology (SBMT) of Belarusian State University), 2006–2013.

Administrative Duties

2015 – ... Member of the Doctoral Committee in Logistics at Molde University College.

2016 – ... Deputy member of the Board, Faculty of Logistics, Molde University College.

2011 – ... Erasmus coordinator for Teaching and Student Mobility between Molde University College and UPC, Spain.

2016 – 2017 Leader of the development of specialization in Logistics Analytics of the MSc study program in Logistics at Molde University College.

2013 – 2015 Leader of the development of MSc study program in Petroleum Logistics at Molde University College in cooperation with energy companies and their providers.

2012 – 2014 Leader of the Doctoral Committee in Logistics at Molde University College.

2006 – 2007 Member of the Board, Institute of Economy, Informatics and Social Sciences, Molde University College.

2004 – 2006 Member of the group for the development of BSc study program in Logistics and Supply Chain Management at Molde University College.

2002 – 2006 Member of the Quality group for MSc study in Industrial Logistics at Molde University College.

1999 – 2006 Member of the group for the development of MSc study program in Industrial Logistics at Molde University College.

Contribution to Organizing Conferences

LA2018 – EURO Mini-conference on Logistics Analytics, Minsk, Belarus, June 18–19, 2018 (co-chair, member of scientific committee and streams organizer).

ROUTE 2018, Snekkersten, Denmark, May 27–30, 2018 (session chair).

VeRoLog 2016, Nantes, France, June 6–8, 2016 (session chair).

IFORS 2014, Barcelona, Spain, July 13–18, 2014 (stream organizer, session chair).

LOT – Logistics, Optimization and Transportation – Special EU/ME meeting in Molde, Norway, August 31–September 2, 2014 (member of the local committee).

ITQM 2014, Moscow, Russia, June 4–6, 2014 (session organizer)

NOFOMA 2006, 2009, 2011 (session chair).

Stochastics in Logistics and Transportation, Håholmen, Norway, June 12–14, 2006 (member of the local committee).

ECCO XVIII, Minsk, Belarus, May 26–28, 2005 (member of the organizing committee).

TraLog 2004, Molde, Norway, August 25–27, 2004 (member of the local committee).

Other Professional Contributions

Leader of the Oil, Gas and Energy Logistics Research Group at Molde University College.

Member of the Research Group for Planning, Optimization and Decision Support at Molde University College.

Member of the Norwegian Operations Research Society (NORS).

Chaired six PhD defences at Molde University College.

Invited 15 foreign professors to teach intensive courses in Logistics for MSc and PhD students.

Recruited over 140 foreign students to study at the MSc programs in Logistics at Molde University College (on quantitative specializations) using professional contacts with universities in Belarus, Russia and Ukraine, either on Quote stipend, or Student Mobility grants from projects, or on joint double-diploma study programs and projects.

Member of Eurasia Program and Russia Program Boards at the Norwegian Centre for International Cooperation in Higher Education.

Professional Networks

HEC Montréal, Canadian Research Chair in Distribution Management.

Equinor, Logistics and Emergency Preparedness Department.

VeRoLog community network.

ROUTE community network.

Sintef Ocean, Energy and Transportation Department.

NTNU, Department of Industrial Economics and Technology Management.

United Institute of Informatics Problems, National Academy of Sciences of Belarus.

NHH, Department of Business and Management Science.

Gubkin Russian State University of Oil and Gas, Faculty of International Energy Business.

Pontifical Catholic University of Rio de Janeiro, Department of Industrial Engineering.

Petrobras, Technology of Optimization Operation and Logistics Department.

Belarusian State University, Faculty of Applied Mathematics and Computer Science.

Higher School of Economics, Laboratory of Decision Choice and Analysis, Faculty of Applied Mathematics.

St. Petersburg State University, Faculty of Economics, Department of Mathematical Modelling in Economics.

Russian Academy of Sciences, Institute for System Analysis of Research Center Computer Science and Control.

Taras Shevchenko National University of Kyiv, Faculty of Computer Science.

Distinctions

Graduated Secondary School with the gold medal, 1975.

MSc diploma with distinction, 1980.

Supervised Andreas Kleiven and Odin Dahlen who won the Norwegian prize for Best Master Thesis in Logistics in 2017.

This document was updated on December 14, 2018.