

## Curriculum Vitae

# Sturla Furunes Kvamsdal

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## Personalia

Born May 30, 1980, Norwegian citizen, married, two children.

## Education

2006 – 2010 Ph.D. Economics, NHH Norwegian School of Economics.  
2003 – 2005 M.Sc. Applied Mathematics, University of Bergen.  
2000 – 2003 Cand. Mag. Mathematics, Physics, Norwegian University of Science and Technology.

## Employment

2014 – Senior researcher, SNF – Centre for Applied Research at NHH (research fellow 2014 – 2019).  
2020 – Adjunct Professor, Western Norway University of Applied Sciences (Adjunct Associate Professor 2020 – 2024).  
2017 – 2020 Adjunct Associate Professor, NHH Norwegian School of Economics.  
2010 – 2013 Post-Doctoral Fellow (Assistant Professor), NHH Norwegian School of Economics.  
2008 – 2010 Research Assistant (part time), Southwest Fisheries Science Center, La Jolla, CA.  
2005 Research Assistant (part time), Center for Fisheries Economics, SNF AS.

## Publications

Haraldsvik, M., A.O. Hopland, **S.F. Kvamsdal** (2023). Determinants of municipal investments. *Applied Economics* (doi: 10.1080/00036846.2023.2293083).  
Ashrafi, T.A., Ø. Hermansen, **S.F. Kvamsdal** (2023). The effect of quota portfolio composition on optimal harvest strategy and profitability in a multi-species fishery. *ICES Journal of Marine Science* 80(8), 2099-2113 (doi: 10.1093/icesjms/fsad135).  
Ni, Y., L.K. Sandal, **S.F. Kvamsdal**, C. Hansen (2023). Using feedforward neural networks to represent ecosystem dynamics for bioeconomic analysis. *Marine Ecology Progress Series* 716, 1-15 (doi: 10.3354/meps14360).  
Hopland, A.O., **S.F. Kvamsdal** (2023). Investments and maintenance spending for public facilities. *Property Management* 41(5), 662-680 (doi: 10.1108/PM-04-2022-0030).  
Hopland, A.O., **S.F. Kvamsdal** (2023). Drinking water contamination and treatment costs. *Water Resources and Economics* 43, 100225 (doi: 10.1016/j.wre.2023.100225).  
Hopland, A.O., M. Haraldsvik, **S.F. Kvamsdal** (2023). Investment in water, sewage and waste disposal in Norwegian local governments. *Property Management* 41(4), 554-563 (doi: 10.1108/PM-10-2022-0073).  
Ni, Y., L. Sandal, **S.F. Kvamsdal** (2023). Greed is good: heuristic adaptations for resilience in renewable resource management. *Natural Resource Modeling* 36(2), e12367 (doi: 10.1111/nrm.12367).  
Hopland, A.O., **S.F. Kvamsdal** (2023). Building conditions and citizen satisfaction with local public services. *Facilities* 41(1/2), 126-139 (doi: 10.1108/f-03-2022-0040).  
**Kvamsdal, S.F.**, A.O. Hopland, Y. Li, S. Selle (2023). Expert opinions on threats and impacts in the marine environment. *Marine Policy* 147, 105382 (doi: 10.1016/j.marpol.2022.105382).

- Kvamsdal, S.F.** (2023). An exploratory analysis of warming effects on wealth in the Barents Sea fisheries. *Economic Analysis and Policy* 77, 34-50 (doi: 10.1016/j.eap.2022.10.016).
- Hopland, A.O., **S.F. Kvamsdal** (2022). Tap water quality: In the eye of the beholder. *Journal of Water & Health* 20(9), 1436-1444 (doi: 10.2166/wh.2022.151).
- Kvamsdal, S.F.**, D. Dankel, N.-A. Ekerhovd, A.H. Hoel, A. Renner, A.B. Sandø, S.I. Steinshamn (2022). Multidisciplinary perspectives on living marine resources in the Arctic. *Polar Research* 41, 7766, (doi: 10.33265/polar.v41.7766).
- Ni, Y., S.I. Steinshamn, **S.F. Kvamsdal** (2022). Negative shocks in an age-structured bioeconomic model and how to deal with them. *Economic Analysis and Policy* 76, 15-30 (doi: 10.1016/j.eap.2022.07.009).
- Asche, F., H.-M. Straume, T. Garlock, U. Johansen, **S.F. Kvamsdal**, R. Nygård, R.B. Pincinato, R. Tveterås (2022). Challenges and opportunities: Impacts of COVID-19 on Norwegian seafood exports. *Aquatic Living Resources* 35, 15 (doi: 10.1051/alr/2022017).
- Kvamsdal, S.F.** (2022). Optimal management of a renewable resource under multiple regimes. *Environmental & Resource Economics* 81(3), 481-499 (doi: 10.1007/s10640-021-00636-z).
- Sandal, L.K., **S.F. Kvamsdal**, J.M. Maroto, M. Morán (2021). A contraction approach to dynamic optimization problems. *PLoS One* 16(11), e0260257 (doi: 10.1371/journal.pone.0260257).
- Kvamsdal, S.F.**, I. Belik, A.O. Hopland, Y. Li (2021). A machine learning analysis of the recent environmental and resource economics literature. *Environmental & Resource Economics* 79(1), 93-115 (doi: 10.1007/s10640-021-00554-0).
- Hopland, A.O., **S.F. Kvamsdal** (2020). Academics' preferences for office spaces. *Facilities* 39(5/6), 350-365 (doi: 10.1108/f-02-2019-0029).
- Kvamsdal, S.F.**, L.K. Sandal, D. Poudel (2020). Ecosystem Wealth in the Barents Sea. *Ecological Economics* 171, 106602 (doi: 10.1016/j.ecolecon.2020.106602).
- Kvamsdal, S.F.**, J.M. Maroto, M. Morán, L.K. Sandal (2020). Bioeconomic modeling of seasonal fisheries. *European Journal of Operational Research* 281(2), 332-340.
- Hopland, A.O., **S.F. Kvamsdal** (2019). Critical success factors for maintenance of local public buildings: The role of contingencies. *Journal of Facilities Management* 17(5), 412-427.
- Hopland, A.O., **S.F. Kvamsdal**, L.K. Sandal (2019). An analysis of maintenance schedules for public facilities. *Operations Research and Decisions* 29(1), 17-35.
- Hopland, A.O., **S.F. Kvamsdal** (2019). Building Conditions in Norwegian Local Governments: Trends and Determinants. *Facilities* 37(3/4), 141-156 (doi: 10.1108/F-10-2017-0101).
- Kvamsdal, S.F.** (2019). Indexing of Technical Change in Aggregated Data. *Computational Economics* 53(3), 901-920 (doi: 10.1007/s10614-017-9771-8).
- Hopland, A.O., **S.F. Kvamsdal** (2018). Concerns among local government facility managers: a Norwegian survey. *Facilities* 36(5/6), 230-243.
- Hopland, A.O., **S.F. Kvamsdal** (2018). On the ranking of critical success factors: The role of cost efficiency and score uncertainty for public facilities management. *Journal of Facilities Management* 16(1), 26-37 (doi: 10.1108/JFM-04-2017-0012).
- Kvamsdal, S.F.**, J.M. Maroto, M. Morán, L.K. Sandal (2017). A bridge between continuous and discrete-time bioeconomic models: Seasonality in fisheries. *Ecological Modelling* 364, 124-131 (doi: 10.1016/j.ecolmodel.2017.09.020).
- Ekerhovd, N.-A., **S.F. Kvamsdal** (2017). Up the Ante on Bioeconomic Submodels of Marine Food Webs: A Data Assimilation-based Approach. *Ecological Economics* 131, 250-261 (doi: 10.1016/j.ecolecon.2016.09.005).
- Kvamsdal, S.F.** (2016). Technical Change as a Stochastic Trend in a Fisheries Model. *Marine Resource Economics* 31(4), 403-419 (doi: 10.1086/687931).
- Kvamsdal, S.F.**, A. Eide, N.-A. Ekerhovd, K. Enberg, A. Gudmundsdottir, A. H. Hoel, K. Mills, F. Mueter, L. Ravn-Jonsen, L.K. Sandal, J. E. Stiansen, N. Vestergaard (2016). Harvest Control Rules in Modern Fisheries Management. *Elementa* 4, 114 (doi: 10.12952/journal.elementa.000114).
- Hopland, A.O., **S.F. Kvamsdal** (2016). Optimal Maintenance Scheduling of Local Public Purpose Buildings. *Property Management* 34(2), 120-135 (doi: 10.1108/PM-01-2015-0002).
- Kvamsdal, S.F.**, D. Poudel, L.K. Sandal (2016). Harvesting in a Fishery with Stochastic Growth and a Mean-Reverting Price. *Environmental & Resource Economics* 63(3), 643-663 (doi: 10.1007/s10640-016-9999-9).

10.1007/s10640-014-9857-x).

- Kvamsdal, S.F.**, L.K. Sandal (2015). The Ensemble Kalman Filter for Multidimensional Bioeconomic Models. *Natural Resource Modeling* 28(3), 321-347 (doi: 10.1111/nrm.12070).
- Poudel, D., L.K. Sandal, **S.F. Kvamsdal** (2015). Stochastically Induced Critical Depensation and Risk of Stock Collapse. *Marine Resource Economics* 30(3), 297-313.
- Kvamsdal, S.F.**, S.M. Stohs (2014). Estimating Endangered Species Interaction Risk with the Kalman Filter. *American Journal of Agricultural Economics* 96(2), 458-468 (doi: 10.1093/ajae/aat092).
- Peck, M.A., S. Neuenfeldt, T.E. Essington, V.M. Trenkel, A. Takasuka, H. Gislason, M. Dickey-Collas, K.H. Anderson, L. Ravn-Jensen, N. Vestergaard, **S.F. Kvamsdal**, A. Gårdmark, J. Link, J.C. Rice (2014). Forage Fish Interactions: A Symposium on Creating the Tools for Ecosystem-Based Management of Marine Resources. *ICES Journal of Marine Science* 71(1), 1-4 (doi: 10.1093/icesjms/fst174).
- Poudel, D., L.K. Sandal, **S.F. Kvamsdal**, S.I. Steinshamn (2013). Fisheries Management Under Irreversible Investment: Does Stochasticity Matter? *Marine Resource Economics* 28(1), 83-103.
- Kvamsdal, S.F.** (2012). An Overview of Empirical Analysis of Behavior of Fishermen Facing New Regulations. *Environmental Economics* 3(2), 102-111.
- Poudel, D., L.K. Sandal, S.I. Steinshamn, **S.F. Kvamsdal** (2012). Do Species Interactions and Stochasticity Matter to Optimal Management of Multispecies Fisheries? in *Global Progress on Ecosystem-Based Fisheries Management*, 209-236, Kruse et al. (eds.), Alaska Sea Grant, University of Alaska, Fairbanks.
- Kvamsdal, S.F.** (2011). Exogenous Shocks and Marine Reserves. *Natural Resource Modeling* 24(3), 316-334.
- Kvamsdal, S.F.**, L.K. Sandal (2008). The Premium of Marine Protected Areas: A Simple Valuation Model. *Marine Resource Economics* 23(2), 171-197. (Reprinted in *Valuing Environment and Natural Resources*, 2012, vol. II, chapter 32, K.G. Willis and G. Garrod (eds.), Edward Elgar Publishing.)

## Miscellaneous

- Kvamsdal, S.F.** (2023). *A matter of time*. SNF Working Paper No. 09/23, Bergen, Norway.
- Hopland, A.O., **S.F. Kvamsdal** (2023). Water treatment costs and impacts on drinking water quality. *Global Water Forum*, <https://www.globalwaterforum.org/2023/07/06/water-treatment-costs-and-impacts-on-drinking-water-quality/>.
- Kvamsdal, S.F.** (2023). Assimilation. In *Dictionary of Ecological Economics*, B.M. Haddad, B.D. Solomon (eds.), Edward Elgar Publishing (doi: 10.4337/9781788974912.A.42).
- Kvamsdal, S.F.** (2023). Assimilative capacity. In *Dictionary of Ecological Economics*, B.M. Haddad, B.D. Solomon (eds.), Edward Elgar Publishing (doi: 10.4337/9781788974912.A.43).
- Haraldsvik, M., A.O. Hopland, **S.F. Kvamsdal** (2020). *Drivere bak investeringer i norske kommuner*. SØF-rapport 02/20, Senter for Økonomisk Forskning, Trondheim, Norway.
- Kvamsdal, S.F.** (2018). All the Boats on the Ocean. How Government Subsidies Led to Global Overfishing. By Carmel Finley [review]. *Marine Resource Economics* 33(1), 113-117 (doi: 10.1086/696003).
- Renner, A., **S.F. Kvamsdal**, N.-A. Ekerhovd, A.H. Hoel, B. Bogstad, C. Hansen, G.O. Johansen, A.B. Sandø, J.E. Stiansen (2017). *Arctic Marine Resources under Climate Change: Environmental, Socio-Economic Perspectives and Governance* [poster]. ESSAS Open Science Meeting, Tromsø, Norway.
- Kvamsdal, S.F.**, A. Eide, N.-A. Ekerhovd, K. Enberg, A. Gudmundsdottir, A. H. Hoel, K. Mills, L. Ravn-Jensen, L.K. Sandal, J. E. Stiansen, N. Vestergaard (2016). Harvest Control Rules in Modern Fisheries Management. In *Proceedings from the 17th Russian Norwegian Symposium*, H. Gjøsæter, B. Bogstad, K. Enberg, Y. Kovalev, E. Shamrai (eds.). IMR/PINRO Joint Report Series 3, 2016, pp. 26-27.
- Eskeland, G., **S.F. Kvamsdal** (2015). Naturressurser og økonomer: Naturressursenes økonomi. *Samfunnsøkonomen* Nr. 1, 2015, 81-83 (in Norwegian).
- Poudel, D., L.K. Sandal, **S.F. Kvamsdal**, S.I. Steinshamn (2014). *Long-term sustainable and optimal*

*management of multispecies stochastic fisheries*. SNF Working Paper No. 01/14, Bergen, Norway.

**Kvamsdal, S.F.**, L.K. Sandal, S.I. Steinshamn, D. Poudel (2012). *Ecosystem-based management in the Barents Sea* [poster]. ICES/PICES Symposium on Forage Fish Interactions, Nantes, France.

Simon, E., J. Bojarova, H. Wackernagel, I. Lie, L. Bertino, G. Evensen, P. Sakov, P. Counillon, **S.F. Kvamsdal** (2011). *Forecasting non-linear systems with the Ensemble Kalman Filter and related data assimilation methods (eVITA-EnKF)*, Nansen Environmental and Remote Sensing Center, NERSC Technical Report No. 325.

Steinshamn, S.I., **S.F. Kvamsdal**, L.K. Sandal (2011). *A stitch in time saves nine: The cost of postponing action in climate policy*. SNF Report 16/11, The Institute for Research in Economics and Business Administration, Bergen.

**Kvamsdal, S.F.** (2010). *Spatial Analysis in Fisheries Economics*, Ph.D. Thesis, NHH Norwegian School of Economics.

## Work in Progress

Ni, Y., A.O. Hopland, **S.F. Kvamsdal**. The two-stage generalized model for Norwegian demersal fisheries. Submitted.

Crépin, A.S., Gren, Å., Falardeu, M., Wu, X., Aanesen, M., Berry, K., Ekerhovd, N.-A., Enriquez, A., Hoel, A.H., **Kvamsdal, S.F.**, Ni, Y., Niiranen, S., Ottersen, G., Rocha, J., Sandø, A.B. Interactions in social-ecological systems in Arctic and sub-Arctic seas: Implications for management. In progress.

**Kvamsdal, S.F.** A model for quota prices in the Norwegian groundfish fishery. Revise and resubmit.

Hopland, A.O., **S.F. Kvamsdal**. Determinants of local government building conditions. Revise and resubmit.

Hopland, A.O., **S.F. Kvamsdal**. Condition of local public buildings and the quality of local welfare services. Submitted.

## Grants, Projects

See <https://tinyurl.com/prmch3fn> for list of awarded projects from the Research Council of Norway.

- 2021 – Winners and losers in the climate casino: Arctic marine resources under climate change (*project leader*), Research Council of Norway, project no. 325665.
- 2020 – 2023 Production in the Barents Sea Fisheries: Across species and fisheries (*project leader*), Research Council of Norway, project no. 302197/E40.
- 2019 Drivere bak investeringer i norske kommuner (*researcher*), Norwegian Ministry of Local Government and Modernisation (Kommunal- og moderniseringsdepartementet).
- 2016 – 2019 ARC-Change – ARCTic Marine Resources under Climate Change: Environmental, Socio-Economic Perspectives and Governance (*project leader*), Research Council of Norway, project no. 257630/E10 ([goo.gl/rxMhHP](https://goo.gl/rxMhHP)).
- 2014 – 2016 EINSAM – Ecosystem-Economic Interactions in the Norwegian Sea: Analysis and Management (*project leader*), Research Council of Norway, project no. 234238/E40.
- 2014 – 2015 Stochastic Bioeconomic and Population Dynamics Modeling of Collapsed Fisheries (*researcher*), EEA Grants, NILS-project, project no. 021-ABEL-CM-2013.
- 2014 – 2015 Pelagic Crisis (*researcher*), Nordic Council of Ministers, project no. (096) – 2013.
- 2013 Overseas Research Grant (UC Berkeley), Research Council of Norway.
- 2012 – 2015 AGAMEM – A General Age-structured Model for Ecosystem Management (*researcher*), Research Council of Norway.
- 2010 – 2013 CLIFFIMA-net – Nordic network: Climate impact on fish, fishery industry and management in the Nordic Seas (*researcher*), NordForsk.
- 2010 – 2014 BMAME – Bioeconomic Multispecies Analysis of Marine Ecosystems (*post doctoral fellow, researcher*), Research Council of Norway.

## Teaching, Supervision

ENE425 Sustainable Energy (NHH master-level course, 7.5 ECTS)

ENE456	Environmental Responsibility: The role of NGOs and large corporations (NHH master-level seminar, 2.5 ECTS)
ENE452	Climate Change and Ethical Challenges (NHH master-level seminar, 2.5 ECTS)
SDG332	Environmental Economics and Sustainable Development (HVL bachelor-level course, 10 ECTS)
Candidates	Yuanming Ni (2019, Ph. D., NHH, “Essays on Fishery Management”) Diwakar Poudel (2012, Ph. D., NHH, “Stochastic analysis in fisheries management”) Didrik Nygaard, Njål S. Vågen (2020, master, NHH, “Prediksjoner av vekt- og kvalitetsfordeling for slakevolum i oppdrettsnæringen”) Susanne Nilsen (2020, master, NHH, “Eiendomsforvaltning i norske kommuner: En empirisk analyse av kommunedata og case-studie av Trondheim kommune”) Martha Skog Astrup (2012, master, NHH, “Ecosystem Based Fisheries Management-how does it work?”)

## Invited Seminars

- Department of Economics, NTNU Norwegian University of Science and Technology, Trondheim, Norway (Nov 2022): *Towards a two-stage generalized model for Norwegian demersal fisheries.*
- Frischseminar, Ragnar Frisch Centre for Economic Research, Oslo, Norway (Aug 2022): *An exploratory analysis of warming effects on wealth in the Barents Sea fisheries.*
- Marine Resource Economics workshop, UiT The Arctic University of Norway, Sommarøy, Norway (Jan 2022): *An exploratory analysis of warming effects on wealth in the Barents Sea fisheries.*
- Institute of Marine Research, Bergen, Norway (Apr 2021): *Production in the Barents Sea Fisheries.*
- Stockholm Environmental and Resource Economics Seminar, Beijer Institute of Ecological Economics, Sweden (Jan 2016): *Up the Ante on Bioeconomic Submodels of Marine Foodwebs: A Data Assimilation-based Approach.*
- Department of Statistics and Operations Research, Universidad Complutense de Madrid, Spain (Apr 2015): *The Ensemble Kalman Filter.*
- Umeå School of Business and Economics, Umeå University, Sweden (Oct 2013): *Ecosystem-Based Fisheries Management in the Barents Sea.*
- Department of Agricultural and Resource Economics, University of California, Berkeley, US (May 2013): *Ecosystem-Based Fisheries Management in the Barents Sea.*

## Relevant Experience

- Associate Editor, Natural Resource Modeling (2024-present).
- Board member, The SNF Foundation (2021-present).
- Fagdidaktisk modul 28, kunstig intelligens i utdanning (HVL, 2024).
- Convener, Bergen Fisheries Economics Workshop (2017, 2018, 2021, 2022, 2023).
- Member of scientific committee, Bergen Economics of Energy and Environment Research Conference (2017, 2018, 2023).
- Opponent, Ph.D. public defense of Cao Thi Hong Nga, UiT The Arctic University of Norway (December, 2022).
- Qualified as Full Professor at the Department of Sociology, Environmental and Business Economics, University of Southern Denmark (2022, assessment available upon request).
- Opponent, Ph.D. public defense of Fabian Roche Aponte, University of Stavanger (June, 2020).
- Pedagogy, basic course (NHH, 2017). Pedagogy, elective module 3 [teaching portfolio] (NHH, 2020).

## Affiliations

Center for Environmental Economics, University of California, San Diego. <http://econ.ucsd.edu/CEE/>

## Visits

- Dept. of Statistics and Operations Research, Universidad Complutense de Madrid (Oct 2016, Apr – May 2015).

- Southwest Fisheries Science Center, La Jolla, NOAA National Marine Fisheries Service (Jul 2013).
- Dept. of Agricultural and Resource Economics, University of California, Berkeley (Jan – Jul 2013).
- Center for Environmental Economics, University of California, San Diego & Southwest Fisheries Science Center, La Jolla, NOAA National Marine Fisheries Service (Sep – Oct 2009).
- Dept. of Economics, University of California, San Diego (Aug 2007 – Jun 2008).

## Referee

Acta Biotheoretica, Arctic Monitoring & Assessment Programme, Computational Economics, Dynamic Games and Applications, Ecological Economics, Ecology, Environmental & Resource Economics, Facilities, Fish and Fisheries, ICES Journal of Marine Science, Journal of Commodity Markets, Journal of Environmental Economics and Management, Marine Resource Economics, npj Ocean Sustainability, Ocean Dynamics, PloS One, Samfunnsøkonomen, Scientific Reports, Scientometrics, Spatial Economic Analysis.

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