

Short CV with publication list: ILKER FER

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Researcher unique identifier : <http://orcid.org/0000-0002-2427-2532>
Nationality : Norwegian (Turkish origin)
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Current Position

Professor, physical oceanography, Geophysical Institute, University of Bergen
Also affiliated with the Bjerknes Centre for Climate Research

Education

2001 Ph.D. Swiss Federal Institute of Technology Lausanne (EPFL), Switzerland.
1997 M.Sc. Institute of Science and Technology, Technical University of Istanbul, Turkey.
1995 Civil engineer. Technical University of Istanbul, Turkey.

Appointments and mobility

2008 – present Professor, Geophysical Inst. (GFI), Univ. of Bergen (UoB)
2013 – 2014 Sabbatical at Scripps Institution of Oceanography, La Jolla, USA
2007 – 2008 Associate professor, GFI, UoB
2004 – 2007 Scientist, Bjerknes Centre for Climate Research (BCCR)
2002 – 2004 Post-doctoral researcher, GFI, UoB

Institutional Responsibilities, Leaderships

2018- on Leader of the *Norwegian National Facility for Ocean Gliders* (NorGliders)
2015- on Leader of the “*Physical Oceanography*” Research Group, GFI, UoB
2011- on Scientific cruise coordinator for UoB
2009-2011 Leader of the program-board, GFI, UoB,
2009-2011 Member of the study-board of the Mat-Nat faculty, UoB
2007- 2015 Co-leader, “*Physical Oceanography*” Research Group, GFI, UoB
2006- 2013 Co-leader, “*Ocean-Ice-Atmosphere Processes*” Research Group, BCCR

Awards and fellowships

2017 Georg Wüst Prize 2017
2017 – on Honorary lifetime member of the German Society for Marine Research
2017 – on Member of the Norwegian Scientific Academy for Polar research
2002 – 04 Postdoctoral Scholarship (FRINAT, Research Council of Norway)

Commissions of Trust

2018 – on Member of the Research Infrastructure Coordination Committee in SIOS
2018 – on Member of the Review Panel for German Research Vessels
2019 – on Editor, *Ocean Science* (open access journal, Copernicus)
2016 – on Editor, *Journal of Physical Oceanography* (journal, American Met Soc.)
2017 – 2019 Editor, *Ocean Dynamics* (journal, Springer)

External reviewer and committee member for the PhD thesis of
- Eefke van der Lee, Leibniz-Institute for Baltic Sea Research, Germany
- Tamara Beitzel, LOCEAN-UPMC, Paris, France
- Fernando Jardon, LOCEAN-UPMC, Paris, France

Evaluator for professor-level promotions for several institutions in Norway, Sweden, USA and Germany. Active reviewer for scientific journals including JPO, JGR, GRL, CSR, DSR, L&O, JTECH, Ocean Sci., Ocean Dyn., Aquatic Sci. Reviewer for national research agencies for USA, UK, Sweden, Germany, France and New Zealand.

Research Expeditions Led

Led more than 20 expeditions at sea or sea ice since 2000, including the North Pole drift stations Borneo (2007 and 2008). Last 5 years:

R/V Kronprins Haakon (# 2018 709), the Nansen LEGACY cruise, North of Svalbard
R/V Kristine Bonnevie (# 2018 616), the Nansen LEGACY cruise, North of Svalbard
R/V Kristine Bonnevie (# 2017 618 and # 2017 606), Mixing in the Lofoten Basin
R/V Håkon Mosby (# 2016 611), Vortex dynamics and mixing in the Lofoten Basin
R/V Håkon Mosby (# 2015 617 and #2014 619), Mixing processes in the MIZ, Svalbard

Scientific Projects Led (last 5 years)

2016 –20 Watermass transformation processes and vortex dynamics in the Lofoten Basin of the Norwegian Sea, RCN (FRINAT, RCN-funded/total budget: 9/15 mil.NOK)
2014 – 17 On Thin Ice: Role of Ocean Heat Flux in Sea Ice Melt, RCN (NORKLIMA, 6/7 mil.NOK)
2011 – 15 Faroe Bank Channel Overflow: Dynamics and Mixing, RCN (FRINAT, 10/15 mil.NOK)

Teaching

(on sabbatical at Scripps Institution of Oceanography, Jan.- Aug. 2013)

2007- on Physical oceanography of fjords (GEOF337); Turbulence in the ocean (GEOF310)
Introduction to dynamics of ocean and atmosphere (GEOF110);
Introduction to Master's thesis work (GEOF301)

Advisee

Ph.D: Current: E. Kolås, J. S. Dugstad, F. M. Carvajalino
K. L. Daae (2018), A. K. Peterson (2017), A. Randelhoff (co-adv., 2017)
M. B. Paskyabi (2014), K. S. Sponheim (2011), F. Geyer (2010, co-adv.)
A. Sirevaag (2009, co-adv.), A Sundfjord (2007, co-adv.), K. Widell (2006, co-adv.)

M.Sc.: Current: Aleksander Libæk
Hauk M Løvseth (2018) Katrine Hiorth (2018) Eivind Kolås (2017) T. Fjellsbø (2013),
A. K. Peterson (2013), M. Jensen (2012), A. Meyer (2011), I. R.-Baroni (2008), K. L. Daae (2008), K. Richter (2005)

Invited talks (last 5 years)

Gordon Science Conference on Ocean Mixing, Andover, USA (2018),
EGU, Vienna, Austria (2017),
4th pan-Arctic integration symposium, Motovun, Croatia (2017)
The Royal Society of Edinburgh, Scotland (2015).

List of publications

Last 5 years, peer-reviewed articles only (see <http://folk.uib.no/ngfif/> for a complete list).

92. Dugstad, J., **I. Fer**, J. LaCasce, M. Sanchez de La Lama, and M. Trodahl (2019), Lateral Heat Transport in the Lofoten Basin: ..., *J. Geophys. Res.*, 124, 10.1029/2018jc014774.
91. Menze, S., R. B. Ingvaldsen, P. Haugan, **I. Fer**, A. Sundfjord, A. Beszczynska-Moeller, and S. Falk-Petersen (2019), Atlantic Water Pathways ..., *J. Geophys. Res.*, 124, 10.1029/2018jc014299.
90. Kolås, E. and **I. Fer**, Hydrography, transport and mixing of the West Spitsbergen Current: the Svalbard Branch in summer 2015, *Ocean Sci.*, 14, 1603-1618, 10.5194/os-14-1603-2018
89. Daae, K., **I. Fer**, and E. Darelius (2018), Variability and Mixing of the Filchner Overflow Plume on the Continental Slope, Weddell Sea, *J. Phys. Oceanogr.*, 49, 3-20, 10.1175/jpo-d-18-0093.1.
88. Bosse, A., **I. Fer**, H. Sjøiland, T. Rossby (2018), Atlantic Water transformation along its poleward pathway across the Nordic Seas, *J. Geophys. Res.*, 10.1029/2018JC014147.
87. **Fer, I.**, A. Bosse, B. Ferron, and P. Bouruet-Aubertot (2018), The dissipation of kinetic energy in the Lofoten Basin Eddy, *J. Phys. Oceanogr.*, 10.1175/JPO-D-17-0244.1.
86. Granskog, M. A., **I. Fer**, A. Rinke, and H. Steen (2018), Atmosphere-Ice-Ocean-Ecosystem Processes in a Thinner Arctic Sea Ice Regime:, *J. Geophys. Res.*, 123, 10.1002/2017JC013328.
85. Daae, K., E. Darelius, and **I. Fer**, S. Østerhus, and S. Ryan (2017), Wind stress mediated variability of the Filchner Trough overflow, Weddell Sea, *J. Geophys. Res.*, 123, 10.1002/2017JC013579.
84. Guthrie, J., **I. Fer**, and J. Morison (2017). Thermohaline Staircases in the Amundsen Basin: possible disruption by shear and mixing. *J. Geophys. Res.*, 10.1002/2017JC012993.
83. **Fer, I.**, A. K. Peterson, A. Randelhoff, and A. Meyer (2017), One-dimensional evolution of the upper water column in the Atlantic sector of the Arctic, *J. Geophys. Res.*, 10.1002/2016JC012431.
82. Lu-Sha Yu, A. Bosse, **I. Fer**, K. A. Orvik, E. M. Bruvik, I. Hessevik, and K. Kvalsund (2017), The Lofoten Basin Eddy: as observed by Seagliders, *J. Geophys. Res.*, 10.1002/2017JC012982
81. Meyer, A., **Fer, I.**, Sundfjord, A. and Peterson, A. K. (2017), Mixing rates and vertical heat fluxes north of Svalbard from Arctic winter to spring. *J. Geophys. Res.*, 10.1002/2016JC012441
80. Bakhoday-Paskyabi, M., **I. Fer**, and J. Reuder (2017), Current and turbulence measurements at the FINO1 offshore wind energy site: ..., *Ocean Dyn.* 10.1007/s10236-017-1109-5.
79. Daae, K., T. Hattermann, E. Darelius, and **I. Fer** (2017), On the effect of topography and wind on warm water inflow—An idealized study of the southern Weddell Sea continental shelf system, *J. Geophys. Res.*, 10.1002/2016JC012541.
78. Peterson, A. K., **I. Fer**, M. G. McPhee, and A. Randelhoff (2017), Turbulent heat and momentum fluxes in the upper ocean under Arctic Sea Ice, *J. Geophys. Res.*, 10.1002/2016JC012283.
77. Randelhoff, A., **I. Fer**, and A. Sundfjord (2017), Turbulent upper-ocean mixing affected by meltwater layers during Arctic summer, *J. Phys. Oceanogr.* 835-853, 10.1175/jpo-d-16-0200.1.
76. Meyer, A., A. Sundfjord, **I. Fer**, et al. (2017), Winter to summer oceanographic observations in the Arctic Ocean north of Svalbard, *J. Geophys. Res.*, 10.1002/2016JC012391.
75. Darelius, E., **I. Fer**, K.W. Nicholls (2016). Observed vulnerability of Filchner-Ronne Ice Shelf to wind-driven inflow of warm deep water, *Nat. Comm.*, doi: 10.1038/NCOMMS12300
74. Randelhoff, A., **I. Fer**, A. Sundfjord, J.-E. Tremblay and M. Reigstad (2016). Vertical fluxes of nitrate in the seasonal nitracline of the Atlantic sector ..., *J. Geophys. Res.*, 10.1002/2016JC011779
73. Hole, L. R., **I. Fer**, and D. Peddie (2016). Directional wave measurements using an autonomous vessel, *Ocean Dyn.*, doi: 10.1007/s10236-016-0969-4
72. Guo C., M. Ilicak, M. Bentsen, **I. Fer** (2016). Characteristics of the Nordic Seas overflows in a set of Norwegian Earth System Model experiments, *Ocean Modell.* 10.1016/j.ocemod.2016.06.004.

71. **Fer, I.**, E. Darelius, and K. B. Daae (2016). Observations of energetic turbulence on the Weddell Sea continental slope, *Geophys. Res. Lett.*, 43, doi:10.1002/2015GL067349
70. Zhou, S.-Q., Y.-Z. Lu, X.-L. Song, **I. Fer** (2016). New layer thickness parameterization of diffusive convection in the ocean. *Dyn. Atmos. Oceans*, 73: 87-97, 10.1016/j.dynatmoce.2016.01.001.
69. Ullgren, J, E. Darelius, and **I. Fer** (2016). Volume transport and mixing of the cold water overflow downstream of the Faroe Bank ..., *Ocean Sci.*, 12, 451-470, 10.5194/os-12-451-2016.
68. Bakhoday Paskyabi, M., H.T. Bryhni, J. Reuder, and **I. Fer** (2015). Lagrangian measurement of waves and near surface turbulence from acoustic instruments. *Energy Procedia*, 80, 141-150.
67. Darelius, E., **I. Fer**, T. Rasmussen, C. Guo, and K.M.H. Larsen (2015). On the modulation of the periodicity of the Faroe Bank Channel overflow instabilities, *Ocean Sci.*, 11, 855-871.
66. Guthrie, J., **I. Fer**, and J. Morison (2015). Observational validation of the diffusive convection flux laws in the Amundsen Basin, Arctic Ocean. *J. Geophys. Res.*, 10.1002/2015JC010884.
65. **Fer, I.**, M. Müller, and A. K. Peterson (2015). Tidal forcing, energetics, and mixing near the Yermak Plateau. *Ocean Sci.*, 11, 287-304, doi:10.5194/os-11-287-2015.
64. Carmack E. and 17 co-authors incl. **I. Fer** (2014). The new Arctic: towards quantifying the increasing role of oceanic heat in sea ice loss. *Bull. Am. Met. Soc.*, 96, 2079–2105.
63. Ghani M.H., L. R. Hole , **I. Fer** , et al. (2014), The SailBuoy remotely-controlled unmanned vessel: measurements of ... in the Northern Gulf of Mexico, *Methods in Oceanogr.*, 10, 104-121.
62. Darelius, E., K. Makinson , K. Daae , **I. Fer**, P.R. Holland, and K.W. Nicholls (2014). Hydrography and circulation in the Filchner Depression, Weddell Sea, Antarctica. *J. Geophys. Res.*, 119.
61. Guo, C, M. Ilicak, **I. Fer**, E. Darelius, and M. Bentsen (2014). Baroclinic instability of the Faroe Bank Channel Overflow. *J. Phys. Oceanogr.*, 10.1175/JPO-D-14-0080.1.
60. Peterson, A. K. and **I. Fer**, (2014). Dissipation measurements using temperature microstructure from an underwater glider. *Method. Oceanogr.*, 10, 44-69, 10.1016/j.mio.2014.05.002.
59. Vihma, T., and 16 co-authors incl. **I. Fer** (2014). Advances in understanding and parameterization of small-scale physical processes in the marine Arctic *Atmos. Chem. Phys.*, 14, 9403-9450.
58. **Fer, I.**, A. K. Peterson, and J. E. Ullgren (2014). Microstructure measurements from an underwater glider in the turbulent Faroe Bank Channel overflow. *J. Atmos. Ocean. Tech.*, 31, 1128-1150.
57. **Fer, I.** (2014). Near-inertial mixing in the central Arctic Ocean, *J. Phys. Oceanogr.* 44, 2031–2049, doi: 10.1175/JPO-D-13-0133.1.
56. Waterhouse, A. F., and 18 co-authors incl. **I. Fer** (2014). Global Patterns of Diapycnal Mixing from Measurements of the Turbulent Dissipation Rate. *J. Phys. Oceanogr.*, 44(7): 1854-1872.
55. Darelius, E., K. O. Strand, S. Østerhus, T. Gammelsrød, M. Årthun and **I. Fer** (2014). On the seasonal signal of the Filchner Overflow, ..., *J. Phys. Oceanogr.*, 44, 1230-1243.
54. Ullgren, J. E., **I. Fer**, E. Darelius, and N. Beaird (2014). Interaction of the Faroe Bank Channel overflow with Iceland Basin intermediate waters, *J. Geophys. Res.*, 119, 228-240.
53. Støylen, E., and **I. Fer** (2014), Tidally induced internal motion in an Arctic fjord, *Nonlinear Proc. Geophys.*, 21(1), 87-100, doi: 10.5194/npg-21-87-2014.
52. Bakhoday Paskyabi, M. and **I. Fer**, (2014). The influence of surface gravity waves on the injection of turbulence in the upper ocean, *Nonlin. Processes Geophys.*, 21, 713-733.
51. **Fer, I.**, and Bakhoday Paskyabi, M. (2014). Autonomous ocean turbulence measurements using shear probes on a moored instrument. *J. Atmos. Ocean. Tech.*, 31(2), 474-490.
50. **Fer, I.**, and K. Drinkwater (2014). Mixing in the Barents Sea Polar Front near Hopen in spring. *J. Mar. Sys.*, 130, 206-218, 10.1016/j.jmarsys.2012.01.005.