

## LIST OF PUBLICATIONS, SUSANNE KRATZER, DEEP, SU

*In total, I have published 48 peer reviewed papers, 27 of which as first/senior\* author; 10 papers were/are published in Remote Sensing of Environment, the top journal of remote sensing. I also published 2 monographs, 4 book chapters; 8 extended abstracts for conferences and 9 popular science articles (7 of which in Swedish). Number of Citations: 2502; h-index: 29; i10-index: 46 (Google Scholar, 21 January 2022).*

### Monographs

**Kratzer, S.**, 2000, Bio-optical studies of coastal waters, PhD thesis; monograph in English, School of Ocean Sciences, University of Wales, Bangor (UWB), UK.

[ISNI 0000 0001 3602 4205](https://orcid.org/0000-0001-3602-4205).

**Kratzer, S.**, 1994, A comparison of the optical properties of phytoplankton from coastal and oceanic waters, Diplomarbeit (Master Thesis, written in English), Universität Bremen, Germany.

### Peer-reviewed articles

48. \*Cazzaniga, I., Zibordi, G., Alikas, K. and **Kratzer, S.**, Temporal changes in the Remote Sensing Reflectance at Lake Vänern, *Journal of Great Lakes Research*, in print.
47. Wei, J., Wang, M. Mikelsons, K., Jiang, L., **Kratzer, S.**, Lee, Z., Moore, T., Sosik, H.M. and Van der Zande, D., Global satellite water classification data products over oceanic, coastal, and inland waters. 2022, *Remote Sensing Environment*, 282, 113233.
46. **Kratzer, S.**, Harvey, E.T. and Canuti, E., 2022. International Intercomparison of In Situ Chlorophyll-a Measurements for Data Quality Assurance of the Swedish Monitoring Program. *Frontiers in Remote Sensing*, 3, p. 866712; doi:10.3389/frsen.2022.866712.
45. Liu, H., He, X., Li, Q., Hu, X., Ishizaka, J., **Kratzer, S.**, Yang, C., Shi, T., Hu, S., Zhou, Q. and Wu, G., 2021. Evaluation of ocean colour atmospheric correction methods for Sentinel-3 OLCI using global automatic in-situ observations. *IEEE Transactions on Geoscience and Remote Sensing* published online 16 Dec 2021. DOI: 10.1109/TGRS.2021.3136243.
44. Liu, H., He, X., Li, Q., **Kratzer, S.**, Wang, J., Shi, T., Hu, Z., Yang, C., Hu, S., Zhou, Q., Wu, G., 2021. Estimating ultraviolet reflectance from visible bands in ocean colour remote sensing, *Remote Sensing of Environment*, 258, 112404, ISSN 0034-4257.
43. Pahlevan, N., Mangin, A., Balasubramanian, S.V., Smith, B., Alikas, K., Arai, K., Barbosa, C., Bélanger, S., Binding, C., Bresciani, M., Giardino, C., Gurlin D., Fan, Y., Harmel, T., Hunter, P., Ishikawa, J., **Kratzer, S.**, Lehmann, M.K, Ligi, M., Ma, R., Martin-Lauzer, F.-R., Olmanson, L., Oppelt, N., Pan, Y., Peters, S., Reynaud, N., Sander de Carvalho. L.A., Simis, S., Spyarakos E., Steinmetz, F., Stelzer, K., Sterckx, S., Tormos, T., Tyler, A., Vanhellemont, Q., Warren, M., 2021. ACIX-Aqua: A global assessment of atmospheric correction methods for Landsat-8 and Sentinel-2 over lakes, rivers, and coastal waters. *Remote Sensing of Environment*, 258, 112366.
42. Lavigne, H., Van d. Zande, D., Ruddick, K., Dos Santos, J.C., Gohin, F., Brotas, V. and **Kratzer, S.**, 2021. Quality-control tests for OC4, OC5 and NIR-red satellite chlorophyll-a algorithms applied to coastal waters. *Remote Sensing of Environment*, 255, 112237.
41. Fan, Y., Li, W., Chen, N., Ahn, J.H., Park, Y.J., **Kratzer, S.**, Schroeder, T., Ishizaka, J., Chang, R. and Stamnes, K., 2021. OC-SMART: A machine learning based data analysis platform for satellite ocean color sensors. *Remote Sensing of Environment*, 253, 112236.

40. **Kratzer, S.** and Plowey, M. 2021, Integrating mooring and ship-based data for improved validation of OLCI chlorophyll-a products in the Baltic Sea. *International Journal of Applied Earth Observation and Geoinformation*, 94, 102212.
39. \*Kari, E., Jutila, A., Friedrichs, A., Leppäranta, M. and **Kratzer, S.**, 2020. Measurements of light transfer through drift ice and landfast ice in the northern Baltic Sea. *Oceanologia*, 62(3), 347-363.
38. Blaschek, L., Champagne, A., Dimotakis, C., Nuoendagula, D.R., Hishiyama S., **Kratzer S.**, Kajita S., Pesquet E., 2020. Cellular and genetic regulation of coniferaldehyde incorporation in lignin of herbaceous and woody plants by quantitative Wiesner staining. *Frontiers in Plant Science*, 11:109.
37. **Kratzer, S.**, Kyrlyliuk, D. and Brockmann, C., 2020. Inorganic suspended matter as an indicator of terrestrial influence in Baltic Sea coastal areas—Algorithm development and validation, and ecological relevance. *Remote Sensing of Environment*, 237, 111609.
36. Sathyendranath, S.; Brewin, R.J.W.; Brockmann, C.; Brotas, V.; Calton, B.; Chuprin, A.; Cipollini, P.; Couto, A.B.; Dingle, J.; Doerffer, R.; Donlon, C.; Dowell, M.; Farman, A.; Grant, M.; Groom, S.; Horseman, A.; Jackson, T.; Krasemann, H.; Lavender, S.; Martinez-Vicente, V.; Mazeran, C.; Mélin, F.; Moore, T.S.; Müller, D.; Regner, P.; Roy, S.; Steele, C.J.; Steinmetz, F.; Swinton, J.; Taberner, M.; Thompson, A.; Valente, A.; Zühlke, M.; Brando, V.E.; Feng, H.; Feldman, G.; Franz, B.A.; Frouin, R.; Gould, R.W.; Hooker, S.B.; Kahru, M.; **Kratzer, S.**; Mitchell, B.G.; Muller-Karger, F.E.; Sosik, H.M.; Voss, K.J.; Werdell, J.; Platt, T. An Ocean-Colour Time Series for Use in Climate Studies: The Experience of the Ocean-Colour Climate Change Initiative (OC-CCI). *Sensors* **2019**, 19, 4285. <https://doi.org/10.3390/s19194285>
35. **Kratzer, S.**, Kyrlyliuk, D., Edman, M., Philipson, P. and Lyon, S.W., 2019. Synergy of Satellite, in situ and Modelled Data for Addressing the Scarcity of Water Quality Information for Eutrophication Assessment and Monitoring of Swedish Coastal Waters. *Remote Sensing*, 11(17), 2051.
34. \*Kyrlyliuk, D. and **Kratzer, S.**, 2019. Evaluation of Sentinel-3A OLCI Products Derived Using the Case-2 Regional CoastColour Processor over the Baltic Sea. *Sensors*, 19(16), 3609.
33. Valente, A., et al. (**Kratzer S.**: author 29), 2019. A compilation of global bio-optical in situ data for ocean-colour satellite applications—version two. *Earth System Science Data*, 11(3), 1037-1068.
32. \*Harvey, E.T., Walve, J., Andersson, A., Karlson, B. and **Kratzer, S.**, 2019. The Effect of Optical Properties on Secchi Depth and Implications for Eutrophication Management. *Frontiers in Marine Science*, 5, 496. DOI: 10.3389/fmars.2018.00496.
31. \*Kyrlyliuk, D. and **Kratzer, S.**, 2019. Summer distribution of total suspended matter across the Baltic Sea. *Frontiers in Marine Science*, 5, 504. DOI: 10.3389/fmars.2018.00504.
30. \*Kari, E., Merkouriadi, I., Walve, J., Leppäranta, M. and **Kratzer, S.**, 2018. Development of under-ice stratification in Himmerfjärden bay, North-Western Baltic proper, and their effect on the phytoplankton spring bloom. *Journal of Marine Systems*, 186, 85-95.
29. **Kratzer, S.** and Moore, G., 2018. Inherent Optical Properties of the Baltic Sea in Comparison to Other Seas and Oceans. *Remote Sensing*, 10(3), 418.
28. Andersson, A., Brugel, S., Paczkowska, J., Rowe, O.F., Figueroa, D., **Kratzer, S.** and Legrand, C., 2018. Influence of allochthonous dissolved organic matter on pelagic basal production in a northerly estuary. *Estuarine, Coastal and Shelf Science*, 204, 225-235.
27. \*Wozniak, M., Craig, S., **Kratzer, S.**, Wojtasiewicz, B. and Darecki, M., 2017. A Novel Statistical Approach for Ocean Colour Estimation of Inherent Optical Properties and Cyanobacteria Abundance in Optically Complex Waters. *Remote Sensing*, 9(4), 343.
26. \*Alikas, K. and **Kratzer, S.**, 2017. Improved retrieval of Secchi depth for optically-complex waters using remote sensing data. *Ecological Indicators*, 77, 218-227.

25. \*Kari, E, **Kratzer, S.**, Beltrán-Abaunza, J, Harvey, ET and Vaičiūtė, D, 2016. Retrieval of suspended particulate matter from turbidity– model development, validation, and application to MERIS data over the Baltic Sea; *International Journal of Remote Sensing*, 38(7), 1983-2003. <http://dx.doi.org/10.1080/01431161.2016.1230289>.
24. \*Beltrán-Abaunza, J.M., **Kratzer, S.** and Högländer, H., 2016. Using MERIS data to assess the spatial and temporal variability of phytoplankton in coastal areas, *International Journal of Remote Sensing*, 1-25. <http://dx.doi.org/10.1080/01431161.2016.1249307>
23. Philipson, P., **Kratzer, S.**, Ben Mustapha, S., Strömbeck, N. and Stelzer, K., 2016, Satellite-based water quality monitoring in Lake Vänern, Sweden; *International Journal of Remote Sensing*, 37 (16), 3938-3960, DOI: 10.1080/01431161.2016.1204480.
22. Zdun, A., Rozwadowska, A., & **Kratzer, S.**, 2016. The impact of air mass advection on aerosol optical properties over Gotland (Baltic Sea). *Atmospheric Research*, 182, 142-155.
21. Valente, A., Sathyendranath, S., Brotas, V., Groom, S., Grant, M., Taberner, M., Antoine, D., Arnone, R., Balch, W.M., Barker, K., Barlow, R., Bélanger, S., Berthon, J.-F. , Besiktepe, S., Brando, V., Canuti, E., Chavez, F., Claustre, H., Croux, R. Frouin, R., García-Soto, C. , Gibb, S.W. , Gould, R. , Hooker, S. , Kahru, M. , Klein, H., **Kratzer, S.**, Loisel, H. , McKee, D. Mitchell, B.G., Moisan, T., Muller-Karger, F., O'Dowd, L., Ondrusek, M. , Poulton, A.J., Repecaud, M. , Smyth, T., Sosik, H.M, Twardowski, M., Voss, K., Werdell, J., Wernand, M. and Zibordi, G., 2016. A compilation of global bio-optical in situ data for ocean-colour satellite applications. *Earth System Science Data*, 8 (1), 235-252.
20. \*Alikas, K. **Kratzer, S.**, Reinart, A. Kauer, T. and Paavel, B., 2015. Robust remote sensing algorithms to derive the diffuse attenuation coefficient for lakes and coastal waters, *Limnology and Oceanography Methods*, 13 (8), 402–415.
19. \*Harvey T., **Kratzer S.**, Andersson, A., 2015, Relationships between Coloured Dissolved Organic Matter (CDOM) and Dissolved Organic Carbon (DOC) in different coastal gradients of the Baltic Sea, *Ambio* 44 (3), 392-401.
18. \*Harvey T., **Kratzer S.**, Philipson P., 2015, Satellite-based water quality monitoring for improved spatial and temporal retrieval of chlorophyll-a in coastal waters, *Remote Sensing of Environment*, 158, 417-430.
17. Sterckx, S., Knaeps, E., **Kratzer, S.** and Ruddick, K., 2015, SIMilarity Environment Correction (SIMEC) applied to MERIS data over inland and coastal waters, *Remote Sensing of Environment*, 157, 96-110.
16. \*Beltrán-Abaunza, J.M., **Kratzer, S.** and Brockmann, C., 2014. Evaluation of MERIS products from Baltic Sea coastal waters rich in CDOM, *Ocean Science*, 10, 377-396.
15. **Kratzer, S.**, Harvey, T. and Philipson, P., 2014. The use of ocean colour remote sensing in integrated coastal zone management- a case study from Himmerfjärden, Sweden. *Marine Policy* 43, 29–39.
14. \*Hommersom, A., **Kratzer, S.**, Laanen, M., Ansko, I., Ligi, M., Bresciani, M., Giardino, C., Beltran-Abaunza, JM, Moore, G, Wernand, M, Peters, S, 2012, Intercomparison in the field between the new WISP-3 and other radiometers (TriOS Ramses, ASD FieldSpec, and TACCS), *Journal of Applied Remote Sensing* 6 (1), 063615-21.
13. Zieliński, T., Petelski, T., Makuch, P., Strazańska, A., Ponczkowska, A., Markowicz, K.M., Chourdakis, G., Geogoussis, G. and **Kratzer, S.**, 2012, Studies of Aerosols Advection to Coastal Areas with the Use of Remote Techniques. *Acta Geophysica*: 60 (5), 1359-1385.

12. Zibordi, G., Ruddick, K., Ansko, I., Moore, G., **Kratzer, S.**, Icely, J. and Reinart, A., 2012. In situ determination of the remote sensing reflectance: an inter-comparison. *Ocean Science* 8 (4), 567–586. <http://www.ocean-sci-discuss.net/9/787/2012/osd-9-787-2012.html>
11. Toledano, C., Cachorro, V., Gausa, M., Stebel, K., Aaltonen, V., Berjón, A., de Galisteo, J.P.O, de Frutos, A.M., Bennouna, Y., Blindheim, S. Myhre, C.L., Zibordi, G., Wehrli, C., **Kratzer, S.**, Hakansson, B.; Carlund, T.; de Leeuw, G.; Herber, A.; Torres, B., 2011, Overview of Sun Photometer Measurements of Aerosol Properties in Scandinavia and Svalbard. *Atmospheric Environment* 52, 18-28. <http://www.sciencedirect.com/science/article/pii/S1352231011010818>
10. Zdun, A., Rozwadowska, A. and **Kratzer, S.**, 2011, Seasonal variability in the optical properties of Baltic aerosols, *Oceanologia* 53(1), 7-34.
9. **Kratzer, S.** and Vinterhav, C., 2010, Improvement of MERIS data in Baltic Sea coastal areas by applying the Improved Contrast between Ocean and Land processor (ICOL), *Oceanologia*, 52(2), 211-236.
8. **Kratzer, S.** and Tett, P., 2009, Using bio-optics to investigate the extent of coastal waters a Swedish case study, *Hydrobiologia*, 629:169-186.
7. **Kratzer, S.**, Brockmann, C. and Moore G., 2008, Using MERIS full resolution data (300 m spatial resolution) to monitor coastal waters– a case study from Himmerfjärden, a fjord-like bay in the north-western Baltic Sea, *Remote Sensing of Environment*, 112(5), 2284-2300.
6. Pierson, D., **Kratzer, S.**, Strömbeck, N., and Håkansson, B., 2008, Relationship between the attenuation of downwelling irradiance at 490 nm with the attenuation of PAR (400nm- 700nm) in the Baltic Sea, *Remote Sensing of Environment*, 112 (3), 668-680.
5. **Kratzer, S.**, Håkansson, B., and Sahlin, C., 2003, Assessing Secchi and photic zone depth in the Baltic Sea from Space, *Ambio*, 32(8), 577-585.
4. Tett, P., Gilpin, L., Svendsen, H., Erlandsson, C. P., Larsson, U., **Kratzer, S.**, Fouilland, E., Janzen, C., Lee, J.-Y., Grenz, C., Newton, A., Ferreira, J. G., Fernandes, T. & Scory, S., 2003. Eutrophication and some European waters of restricted exchange. *Continental Shelf Research*, 23(17-19), 1635-1671.
3. **Kratzer, S.**, Buchan, S. and Bowers D.G., 2003, Testing long term trends in turbidity in the Menai Strait, North Wales, *Estuarine, Coastal and Shelf Science*, 56(2), 221-226.
2. Bowers, D.G., **Kratzer, S.**, Morrison, J.R., Smith, P.S.D., Tett, P.B., Walne, A.W., and Wild-Allen, K., 2001, On the calibration and use of in situ ocean colour measurements for monitoring algal blooms, *International Journal of Remote Sensing*, 22(2&3), 359-368.
1. **Kratzer, S.**, Bowers, D. and Tett, P., 2000, Seasonal changes in colour ratios and optically active constituents in the optical Case-2 waters of the Menai Strait, North Wales, *International Journal of Remote Sensing*, 21(11), 2225-2246.

## Book chapters

- Kratzer S.**, Kowalczyk P., Sagan S., 2017. *Bio-optical water quality assessment*. Chapter 15 [in:] Snoeijs-Leijonmalm P, Schubert H, Radziejewska T (Eds.) *Biological Oceanography of the Baltic Sea*. 527-545; Springer International Publishing, ISBN 978-94-007-0668-2.
- Kratzer, S.**, Alikas, K., Harvey, E.T., Beltrán-Abaunza, J.M., Morozov, E., Ben Mustapha, S. and Lavender, S., 2016. *Multitemporal remote sensing of coastal waters*. Y. Ban. (Ed.) Chapter 19 [in:] *Multitemporal Remote Sensing*, 391-426. Springer Internat. Publishing. ISBN 978-3-319-47037-5.
- Kratzer S.**, Ebert, K. and Sørensen, K., 2011. *Monitoring the Bio-optical State of the Baltic Sea Ecosystem with Remote Sensing and Autonomous In Situ Techniques*. Chapter 20 [in:] *The Baltic Sea*

Basin. Central and Eastern European Development Studies (CEEDES), J. Harff, J., Björck, S. and Hoth, P. (Eds.), 8: 407-435, Springer International Publishing, ISBN 978-3-642-17220-5.

**Kratzer, S.** and Tett, P., 2009. *Using bio-optics to investigate the extent of coastal waters a Swedish case study*. Chapter 10 [in:] Eutrophication in Coastal Ecosystems, Developments in Hydrobiology 207, Editors: Andersen, J.H., Conley, D.J. (Eds.), 169-186; Springer International Publishing. ISBN 978-90-481-3384-0.

## Conference Papers

Alikas K., **Kratzer S.**, Reinart A., 2012. Robust  $K_d(490)$  algorithms for remote sensing of optically-complex waters. Extended abstract and oral presentation at Ocean Optics, Glasgow, October 2012.

Doerffer, R. and **Kratzer, S.**, 2012, Development of the film ‘The Science of Ocean Colour’ for teaching optical oceanography and ocean colour remote sensing, Extended abstract and film presentation at Ocean Optics, Glasgow, October 2012.

Harvey E.T., **Kratzer S.** and Philipson, P., 2012. Improved monitoring in coastal waters by using MERIS-derived chlorophyll concentrations: a comparative study of ship-based and satellite-based monitoring data in Himmerfjärden, Sweden. Extended abstract and poster at Ocean Optics, Glasgow, October 2012.

Hommersom, A., **Kratzer, S.**, Strömbeck, N. and Philipson, P., 2012, Characterisation of the optical properties of Lake Vänern, Sweden, for improved water quality mapping by remote sensing, Extended abstract and poster at Ocean Optics, Glasgow, October 2012.

Sanwlani, N. and **Kratzer, S.**, 2012, Validation of MODIS level 2 products over Lake Vänern, Sweden, 2012, Extended abstract and poster at Ocean Optics, Glasgow, October 2012.

Sterckx, S., Knaeps, E., Santer, R., **Kratzer, S.**, Ruddick, K., Brockmann, C., 2012, Environment correction for inland and coastal water scenes: a comparison of methods. Poster presentation at the Sentinel-2 preparatory symposium, 23-27 April 2012, ESA-ESRIN, Frascati (Rome), Italy.

Moore, G.; Lavender, S.; **Kratzer, S.**; Icely, J. and Huot, J-P, 2010, The MERIS bright pixel atmospheric correction: evolution, performance assessment and validation for the MERIS 3rd reprocessing, paper for Ocean Optics XX in Anchorage, Alaska, 27 September - 1 October 2010.

Moore, G.F., Icely, J.D. and **Kratzer, S.**, 2010, Field inter-comparison and validation of in water radiometers and sun photometers for MERIS validation. Poster presentation ESA Living Planet Symposium in Bergen, Norway from 28 June to 2 July 2010, will be published as Special Publication SP-686 on CD-ROM.

Subramaniam, A., **Kratzer, S.**, Carpenter J.C. and Söderbäck, E., 2000, Remote sensing and optical in-water measurements of a cyanobacteria bloom in the Baltic Sea. Sixth International Conference on Remote Sensing for Marine and Coastal Environments, Charleston, SC, Veridian ERIM International, I-57-64.

**Kratzer, S.**, Land, P. and Strömbeck, N., 1998, An optical in-water model for the Baltic Sea, Ocean Optics XIV Conference Papers, CD, Volume 2, New Insights from Ocean Color, Office of Naval Research. Ocean, Atmosphere, and Space S&T Department, Nov. 1998.

## Popular science articles

- Walve, J. and **Kratzer, S.** Vattnets färg påverkar satellitdata (The colour of the water influences satellite data). Rapport, Svealandskusten 2022 (Svealand's Coast 2022, Report no. 546425), p 27-30; ISBN 978-91-987871-0-8.
- Kratzer, S.**, Recent advance in remote sensing of coastal and inland waters, 2020, Kart & Bildteknik 2020:2, Swedish Cartographic Society, ISSN 1651-792X, p 20-24.  
<http://kartografiska.se/wp-content/uploads/K-o-B-nr-2-2020-web3.pdf>.
- Kristina Viklund, Susanne Kratzer, Therese Harvey and Agneta Andersson, Siktdjup kan ge felbedömning av vattenstatus, EcoChange Årsrapport, Umeå Universitet & Linnéuniversitetet.  
<https://www.umu.se/globalassets/organisation/fakulteter/teknat/ecochange/ecochange-arsrapport-2019.pdf>.
- Kratzer, S.**, Havet från rymden - satelliter berättar, Havsutskikt nr. 2/2019  
<https://www.havet.nu/havsutskikt/artikel/havet-fran-rymden---satelliter-berattar>.
- Walve, J., **Kratzer, S.** and Harvey, E.T., 2019. Hur klart kan det bli? Rapport, Svealandskusten 2019 (Report, Svealand's Coast 2019), p 13-15, ISBN 978-91-980325-7-4.  
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- Rymdstyrelsen, 2013, 'Nya metoder för att mäta vattenkvalitet' In: Med blicken mot Jorden – satellitbilder för samhällsnytta och forskning, Swedish National Space Board and Global Reporting 2013, p 26-31.  
[https://www.rymdstyrelsen.se/contentassets/3cdd088084ff4a18b3bde30d7810e418/medblickenmotjorden\\_rymdstyrelsen.pdf](https://www.rymdstyrelsen.se/contentassets/3cdd088084ff4a18b3bde30d7810e418/medblickenmotjorden_rymdstyrelsen.pdf)
- Kratzer, S.** and Therese Arredal Harvey, 2010, Havet 2010, Miljöövervakning från rymden (Environmental monitoring from Space), Naturvårdsverket och Havsmiljöinstitutet, ISSN 1654-6741, 100-102. <https://www.havet.nu/miljoovervakning-fran-rymden>.
- Kratzer, S.**, 2005, Satelliter vakar över Östersjön. Miljötilståndet i egentliga Östersjön, Rapport 2005, ISSN: 1651-3584. <https://www.havet.nu/satelliter-vakar-over-ostersjon>.
- Kratzer, S.**, Ishii, M., Hirsch, S. and Håkansson, B., 2001, Sea-truthing of MERIS using optical data from the open Baltic Sea, Nordic Space Activities, The Nordic and the ENVISAT programme, No. 3 and 4/2001. ISSN:0805-7397. <http://nordicspace.net/wp-content/uploads/2013/07/NSA006.pdf>