## List of peer-reviewed publications (in reverse chronological order)

- [1] A. Barth, A. Alvera-Azcárate, C. Troupin, and J.-M. Beckers, 2022. DINCAE 2: multivariate convolutional neural network with error estimates to reconstruct sea surface temperature satellite and altimetry observations. *Geoscientific Model Development Discussions*, 2021:1–26. doi:10.5194/gmd-2021-353. URL https://gmd.copernicus.org/preprints/gmd-2021-353/.
- [2] S. Simoncelli, G. M. Manzella, A. Storto, A. Pisano, M. Lipizer, A. Barth, V. Myroshnychenko, T. Boyer, C. Troupin, C. Coatanoan, A. Pititto, R. Schlitzer, D. M. Schaap, and S. Diggs, 2022. Chapter Four A collaborative framework among data producers, managers, and users. In G. Manzella and A. Novellino, editors, *Ocean Science Data*, pages 197–280. Elsevier. ISBN 978-0-12-823427-3. doi:https://doi.org/10.1016/B978-0-12-823427-3.00001-3. URL https://www.sciencedirect.com/science/article/pii/B9780128234273000013.
- [3] A. Alvera-Azcarate, A. Barth, C. Troupin, J.-M. Beckers, and D. Van Der Zande, Jul 2021. Creation of high resolution suspended particulate matter data in the north sea from sentinel-2 and sentinel-3 data. 2021 IEEE International Geoscience and Remote Sensing Symposium IGARSS. doi:10.1109/igarss47720.2021.9554197. URL http://dx.doi.org/10.1109/IGARSS47720.2021.9554197.
- [4] A. Alvera-Azcárate, D. Van der Zande, A. Barth, J. F. Cardoso dos Santos, C. Troupin, and J.-M. Beckers, Feb 2021. Detection of shadows in high spatial resolution ocean satellite data using DINEOF. *Remote Sensing of Environment*, 253:112229. ISSN 0034-4257. doi:10.1016/j.rse.2020.112229. URL http://dx.doi.org/10.1016/j.rse.2020.112229.
- [5] A. Alvera-Azcárate, D. Van der Zande, A. Barth, C. Troupin, S. Martin, and J.-M. Beckers, Sep 2021. Analysis of 23 years of daily cloud-free chlorophyll and suspended particulate matter in the greater north sea. *Frontiers in Marine Science*, 8. ISSN 2296-7745. doi:10.3389/fmars.2021.707632. URL http://dx.doi.org/10.3389/fmars.2021.707632.
- [6] A. Barth, A. Alvera-Azcarate, C. Troupin, J.-M. Beckers, and D. Van der Zande, Jul 2021. Reconstruction of missing data in satellite images of the southern north sea using a convolutional neural network (dincae). IEEE. doi:10.1109/igarss47720.2021.9554045. URL http://dx.doi.org/10.1109/IGARSS47720.2021.9554045.
- [7] A. Barth, C. Troupin, E. Reyes, A. Alvera-Azcárate, J.-M. Beckers, and J. Tintoré, 2021. Variational interpolation of high-frequency radar surface currents using DIVAnd. *Ocean Dynamics*. doi:10.1007/s10236-020-01432-x. URL http://hdl.handle.net/2268/253954. In press.
- [8] M. Belgacem, K. Schroeder, A. Barth, C. Troupin, B. Pavoni, P. Raimbault, N. Garcia, M. Borghini, and J. Chiggiato, Dec 2021. Climatological distribution of dissolved inorganic nutrients in the western Mediterranean Sea (1981–2017). Earth System Science Data, 13(12):5915–5949. ISSN 1866-3516. doi:10.5194/essd-13-5915-2021. URL http://dx.doi.org/10.5194/essd-13-5915-2021.
- [9] M. Buurman, C. Troupin, A. Barth, L. Bruvry-Lagadec, S. Mieruch, N. Krishnan, G. Santinelli, F. Baart, P. Thijsse, F. Waumans, and T. Zamani, April 2021. SeaDataCloud Virtual Research Environment: Implementation and Technical Aspects. In M. Fichaut, V. Tosello, and A. Giorgetti, editors, Bollettino di Geofisica teorica ed applicata IMDIS 2021 International Conference on Marine Data and Information Systems, volume 62 supplement 1, pages 114–116. NIOZ. URL https://imdis.seadatanet.org/content/download/151922/file/IMDIS2021\_proceedings.pdf.
- [10] P. Cabrera, V. Otero, G. Everaert, R. Sauzède, R. P. Remanan, H. Claustre, J. Uit, A. Barth, C. Troupin, and L. Schepers, April 2021. Blue-Cloud Demonstrator: A machine learning approach to derive plankton from the Global Ocean. In M. Fichaut, V. Tosello, and A. Giorgetti, editors, Bollettino di Geofisica teorica ed applicata IMDIS 2021 International Conference on Marine Data and Information Systems, volume 62 supplement 1, pages 27–29. NIOZ. URL https://imdis.seadatanet.org/content/download/151922/file/IMDIS2021\_proceedings.pdf.
- [11] V. Myroshnychenko, C. Troupin, A. Barth, C. Troupin, and S. Simoncelli, April 2021. Black Sea Temperature and Salinity climatologies computed with DIVAnd tool. In *Bollettino di Geofisica teorica ed applicata IMDIS 2021 International Conference on Marine Data and Information Systems*, volume 62 supplement 1, pages 84–86. NIOZ. URL <a href="https://imdis.seadatanet.org/content/download/151922/file/IMDIS2021\_proceedings.pdf">https://imdis.seadatanet.org/content/download/151922/file/IMDIS2021\_proceedings.pdf</a>.

- [12] K. Shahzadi, N. Pinardi, A. Barth, C. Troupin, V. Lyubartsev, and S. Simoncelli, Aug 2021. A new global ocean climatology. *Frontiers in Environmental Science*, 9. ISSN 2296-665X. doi:10.3389/fenvs.2021.711363. URL http://dx.doi.org/10.3389/fenvs.2021.711363.
- [13] S. Simoncelli, C. Coatanoan, V. Myroshnychenko, Örjan Bäck, H. Sagen, S. Scory, N. Pinardi, A. Bart, C. Troupin, K. Shahzadi, P. Oliveri, R. Schlitzer, M. Fichaut, and D. Schaap, April 2021. SeaDataCloud temperature and salinity climatologies for the European marginal seas and the Global Ocean. In M. Fichaut, V. Tosello, and A. Giorgetti, editors, Bollettino di Geofisica teorica ed applicata IMDIS 2021 International Conference on Marine Data and Information Systems, volume 62 supplement 1, pages 30–31. NIOZ. URL https://imdis.seadatanet.org/content/download/151922/file/IMDIS2021\_proceedings.pdf.
- [14] C. Troupin, J. Abergas-Arteza, A. Barth, F. Huynh, J. Seppälä, S. Kaitala, A. Kallio, C. Nys, F. Osimanti, P. Thijsse, G. Maudire, and B. Dintrans, April 2021. PHIDIAS: boosting the use of cloud services to benefit marine data management, services and processing. In M. Fichaut, V. Tosello, and A. Giorgetti, editors, Bollettino di Geofisica teorica ed applicata IMDIS 2021 International Conference on Marine Data and Information Systems, volume 62 supplement 1, pages 197–198. NIOZ. URL https://imdis.seadatanet.org/content/download/151922/file/IMDIS2021\_proceedings.pdf.
- [15] C. Troupin, A. Alvera-Azcárate, A. Barth, M. Licer, D. Van der Zande, and J.-M. Beckers, April 2021. Filling data gaps through interpolation: innovative analysis tools for oceanography. In M. Fichaut, V. Tosello, and A. Giorgetti, editors, Bollettino di Geofisica teorica ed applicata IMDIS 2021 International Conference on Marine Data and Information Systems, volume 62 supplement 1, pages 175–176. NIOZ. URL https://imdis.seadatanet.org/content/download/151922/file/IMDIS2021\_proceedings.pdf.
- [16] C. Troupin, A. Barth, L. Bruvry-Lagadec, M. Buurman, S. Kaitala, N. Krishnan, S. Mieruch, G. Santinelli, P. Thijsse, F. Waumans, and T. Zamani, April 2021. Working with the SeaDataCloud Virtual Research Environment: what can we do for you? In M. Fichaut, V. Tosello, and A. Giorgetti, editors, *Bollettino di Geofisica teorica ed applicata IMDIS 2021 International Conference on Marine Data and Information Systems*, volume 62 supplement 1, pages 117–118. NIOZ. URL https://imdis.seadatanet.org/content/download/151922/file/IMDIS2021\_proceedings.pdf.
- [17] A. Alvera-Azcárate, C. Troupin, H. Goosse, M. J. McPhaden, and J.-M. Beckers, Dec 2020. Editorial to the liège colloquium special issue: Long-term studies in oceanography a celebration of 50 years of science at the liège colloquium (1969 2018). Ocean Dynamics, 71(1):119–123. ISSN 1616-7228. doi:10.1007/s10236-020-01421-0. URL https://link.springer.com/article/10.1007/s10236-020-01421-0.
- [18] A. Barth, A. Alvera-Azcárate, M. Licer, and J.-M. Beckers, Mar 2020. DINCAE 1.0: a convolutional neural network with error estimates to reconstruct sea surface temperature satellite observations. *Geoscientific Model Development*, 13(3):1609-1622. ISSN 1991-9603. doi:10.5194/gmd-13-1609-2020. URL https://gmd.copernicus.org/articles/13/1609/2020/.
- [19] S. Ruiz, M. Claret, A. Pascual, A. Olita, C. Troupin, A. Capet, A. Tovar-Sánchez, J. Allen, P.-M. Poulain, J. Tintoré, and A. Mahadevan, 2019. Effects of Oceanic Mesoscale and Submesoscale Frontal Processes on the Vertical Transport of Phytoplankton. *Journal of Geophysical Research*, 124(8):5999-6014. doi:10.1029/2019JC015034. URL https://agupubs.onlinelibrary.wiley.com/doi/abs/10.1029/2019JC015034.
- [20] C. Troupin, A. Pascual, S. Ruiz, A. Olita, B. Casas, F. Margirier, P.-M. Poulain, G. Notarstefano, M. Torner, J. G. Fernández, M. A. Rújula, C. Muñoz, E. Alou, I. Ruiz, A. Tovar-Sánchez, J. T. Allen, A. Mahadevan, and J. Tintoré, Jan 2019. The AlborEX dataset: sampling of sub-mesoscale features in the Alboran Sea. *Earth System Science Data*, 11(1):129–145. ISSN 1866-3516. doi:10.5194/essd-11-129-2019. URL https://www.earth-syst-sci-data.net/11/129/2019/.
- [21] A. Barth, A. Mahadevan, A. Pascual, S. Ruiz, and C. Troupin, 2018. The 48th Liege Colloquium: Submesoscale processes: mechanisms, implications, and new frontiers. *Ocean Dynamics*, 68(8):1067–1069. doi:10.1007/s10236-018-1173-5. URL https://link.springer.com/article/10.1007/s10236-018-1173-5.
- [22] A. Iona, A. Theodorou, S. Sofianos, S. Watelet, C. Troupin, and J.-M. Beckers, 2018. Mediterranean Sea climatic indices: monitoring long-term variability and climate changes. *Earth System Science Data*, 10(4):1829–1842. doi:10.5194/essd-10-1829-2018. URL https://essd.copernicus.org/articles/10/1829/2018/.

- [23] A. Iona, A. Theodorou, S. Watelet, C. Troupin, J.-M. Beckers, and S. Simoncelli, Jul 2018. Mediterranean Sea Hydrographic Atlas: towards optimal data analysis by including time-dependent statistical parameters. *Earth System Science Data*, 10(3):1281–1300. ISSN 1866-3516. doi:10.5194/essd-10-1281-2018. URL https://www.earth-syst-sci-data.net/10/1281/2018/.
- [24] F. Lenartz, C. Troupin, and W. Lefebvre, Sep 2017. Data interpolating variational analysis for the generation of atmospheric pollution maps at various scales. In *International Technical Meeting on Air Pollution Modelling and its Application*, pages 231–235. Springer International Publishing. ISBN 9783319576459. ISSN 2213-8692. doi:10.1007/978-3-319-57645-9\_37. URL https://link.springer.com/chapter/10.1007%2F978-3-319-57645-9\_37.
- [25] M. Licer, B. Mourre, C. Troupin, A. Krietemeyer, A. Jansá, and J. Tintoré, Mar 2017. Numerical study of Balearic meteotsunami generation and propagation under synthetic gravity wave forcing. *Ocean Modelling*, 111:38–45. ISSN 1463-5003. doi:10.1016/j.ocemod.2017.02.001. URL http://www.sciencedirect.com/science/article/pii/S1463500317300136.
- [26] A. Pascual, S. Ruiz, A. Olita, C. Troupin, M. Claret, B. Casas, B. Mourre, P.-M. Poulain, A. Tovar-Sanchez, A. Capet, E. Mason, J. Allen, A. Mahadevan, and J. Tintoré, 2017. A multiplatform experiment to unravel meso- and submesoscale processes in an intense front (AlborEx). Frontiers in Marine Science, 4(39):1–16. doi:10.3389/fmars.2017.00039. URL http://journal.frontiersin.org/article/10.3389/fmars.2017.00039/full.
- [27] A. Barth, S. Watelet, C. Troupin, A. Alvera-Azcárate, G. Santinelli, G. Hendriksen, A. Giorgetti, and J.-M. Beckers, October 2016. OceanBrowser: on-line visualization of gridded ocean data and in situ observations. In I. N. di Oceanografia e di Geofisica Sperimentale, editor, *Bollettino di Geofisica teorica ed applicata IMDIS 2016 International Conference on Marine Data and Information Systems*, volume 57 supplement, pages 39–40. IOPAN and IMGW. URL http://www3.ogs.trieste.it/bgta/pdf/IMDIS2016.pdf.
- [28] M. Juza, R. Escudier, A. Pascual, M.-I. Pujol, G. Taburet, C. Troupin, B. Mourre, and J. Tintoré, 2016. Impacts of reprocessed altimetry on the surface circulation and variability of the Western Alboran Gyre. Advances in Space Research, 58(3):277–288. doi:10.1016/j.asr.2016.05.026. URL http://www.sciencedirect.com/science/article/pii/S0273117716302125.
- [29] M. Juza, B. Mourre, L. Renault, S. Gómara, K. Sebastián, S. Lora, J. P. Beltran, B. Frontera, B. Garau, C. Troupin, M. Torner, E. Heslop, B. Casas, R. Escudier, G. Vizoso, and J. Tintoré, 2016. SOCIB operational ocean forecasting system and multi-platform validation in the Western Mediterranean Sea. *Journal of Operational Oceanography*, 9(sup1):s155-s166. doi:10.1080/1755876X.2015.1117764. URL http://www.tandfonline.com/doi/full/10.1080/1755876X.2015.1117764#.V4M5xP7HjGc.
- [30] L. Petit de la Villéon, S. Pouliquen, H. Wehde, J. Tintore, T. Carval, L. S. Ringheim, S. Tamm, S. Tarot, V. Marinova, M. L. Perivoliotis, de Alfonso Alonso-Muñoyerro, T. Hammarklint, F. Manzano Muñoz, C. Troupin, K. Balem, and C. Guyot, October 2016. Marine environmental data bases: infrastructures and data access systems Copernicus Marine Environment Monitoring Service In Situ TAC: an In situ operational data provision system for operational oceanography. In *Bollettino di Geofisica teorica ed applicata IMDIS 2016 International Conference on Marine Data and Information Systems*, volume 57 supplement, pages 149–150. IOPAN and IMGW. URL http://www3.ogs.trieste.it/bgta/pdf/IMDIS2016.pdf.
- [31] M. Sotillo, E. Garcia-Ladona, A. Orfila, P. Rodríguez-Rubio, J. C. Maraver, D. Conti, E. Padorno, J. Jiménez, E. Capó, F. Pérez, J. Sayol, F. J. de los Santos, A. Amo, A. Rietz, C. Troupin, J. Tintoré, and E. Álvarez Fanjul, 2016. The MEDESS-GIB database: Tracking the Atlantic water inflow. *Earth System Science Data*, 8:141–149. doi:10.5194/essd-8-141-2016. URL http://www.earth-syst-sci-data.net/8/141/2016/.
- [32] C. Troupin, B. Frontera, J. P. Beltran, A. Krietemeyer, K. Sebastian, S. Gómara, M. Gomila, R. Escudier, M. Juza, B. Mourre, Àngels Garau, T. Cañellas, and J. Tintoré, October 2016. Medclic: the Mediterranean in one click. In I. N. di Oceanografia e di Geofisica Sperimentale, editor, Bollettino di Geofisica teorica ed applicata IMDIS 2016 International Conference on Marine Data and Information Systems, volume 57 supplement. IOPAN and IMGW. URL <a href="http://www3.ogs.trieste.it/bgta/pdf/IMDIS2016.pdf">http://www3.ogs.trieste.it/bgta/pdf/IMDIS2016.pdf</a>.
- [33] C. Troupin, B. J. Pau, B. Frontera, S. Gómara, M. Gomila, A. Krietemeyer, C. M. noz, M. A. Rújula, I. Serra, and J. Tintoré, October 2016. Data processing and visualization at the Balearic Islands Coastal Observing and Forecasting System (SOCIB). In I. N. di Oceanografia e di Geofisica Sperimentale, editor, Bollettino di Geofisica teorica ed applicata IMDIS

- 2016 International Conference on Marine Data and Information Systems, volume 57 supplement, pages 43–44. IOPAN and IMGW. URL http://www3.ogs.trieste.it/bgta/pdf/IMDIS2016.pdf.
- [34] M. Juza, B. Mourre, L. Renault, S. Gómara, K. Sebastián, S. Lora, J. Beltran, B. Frontera, C. Troupin, M. Torner, E. Heslop, G. Vizoso, B. Casas, and J. Tintoré, October 28-30 2015. WMOP: Western Mediterranean SOCIB high-resolution ocean forecasting system. In E. Buch, Y. Antoniou, D. Eparkhina, and G. Nolan, editors, *Proceedings of the Seventh EuroGOOS International Conference*:, pages 347–355. EuroGOOS, Lisbon, Portugal. URL http://eurogoos.eu/download/publications/EuroGOOS-2014-Conference-Proceedings.pdf. ISBN 978-2-9601883-1-8.
- [35] A. Pascual, A. Lana, C. Troupin, S. Ruiz, Y. Faugère, R. Escudier, and J. Tintoré, 2015. Assessing SARAL/AltiKa near-real time data in the coastal zone: comparisons with HF radar and Jason-2 observations. *Marine Geodesy*, 38(Supplement 1):260–276. doi:10.1080/01490419.2015.1019656. URL http://www.tandfonline.com/doi/full/10.1080/01490419.2015.1019656.
- [36] P. Sangrà, C. Troupin, B. Barreiro-González, E. D. Barton, A. Orbi, and J. Arístegui, May 2015. The Cape Ghir filament system in August 2009 (NW Africa). *Journal of Geophysical Research*, 120(6):4516–4533. ISSN 2169-9275. doi:10.1002/2014jc010514. URL http://onlinelibrary.wiley.com/doi/10.1002/2014JC010514/full.
- [37] C. Troupin, J. Belltran, E. Heslop, M. Torner, B. Garau, J. Allen, S. Ruiz, and J. Tintoré, 2015. A toolbox for glider data processing and management. *Methods in Oceanography*, 13-14:13-23. doi:10.1016/j.mio.2016.01.001. URL http://www.sciencedirect.com/science/article/pii/S2211122015300207.
- [38] C. Troupin, J. Beltran, B. Frontera, S. Gómara, S. Lora, D. March, K. Sebastian, and J. Tintoré, October 28-30 2015. Oceanographic data management at the Balearic Islands Coastal Ocean Observing and Forecasting System (SOCIB). In E. Buch, Y. Antoniou, D. Eparkhina, and G. Nolan, editors, *Proceedings of the Seventh EuroGOOS International Conference*, pages 177–184. EuroGOOS, Lisbon, Portugal. URL http://eurogoos.eu/download/publications/EuroGOOS-2014-Conference-Proceedings.pdf. ISBN 978-2-9601883-1-8.
- [39] C. Troupin, A. Pascual, G. Valladeau, I. Pujol, A. Lana, E. Heslop, S. Ruiz, M. Torner, N. Picot, and J. Tintoré, 2015. Illustration of the emerging capabilities of SARAL/AltiKa in the coastal zone using a multi-platform approach. *Advances in Space Research*, 55(1):51–59. doi:10.1016/j.asr.2014.09.011. URL http://www.sciencedirect.com/science/article/pii/S0273117714005754.
- [40] A. Barth, J.-M. Beckers, C. Troupin, A. Alvera-Azcárate, and L. Vandenbulcke, 2014. divand-1.0: n-dimensional variational data analysis for ocean observations. *Geoscientific Model Development*, 7:225–241. doi:10.5194/gmd-7-225-2014. URL http://www.geosci-model-dev.net/7/225/2014/gmd-7-225-2014.html.
- [41] J.-M. Beckers, A. Barth, C. Troupin, and A. Alvera-Azcárate, February 2014. Approximate and efficient methods to assess error fields in spatial gridding with DIVA (Data Interpolating Variational Analysis). *Journal of Atmospheric and Oceanic Technology*, 31(2):515–530. doi:10.1175/JTECH-D-13-00130.1. URL http://journals.ametsoc.org/doi/abs/10.1175/JTECH-D-13-00130.1.
- [42] A. Capet, E. Mason, V. Rossi, C. Troupin, Y. Faugère, I. Pujol, and A. Pascual, 2014. Implications of refined altimetry on estimates of mesoscale activity and eddy-driven offshore transport in the Eastern Boundary Upwelling Systems. *Geophysical Research Letters*, 41(21):7602–7610. doi:10.1002/2014GL061770. URL http://onlinelibrary.wiley.com/doi/10.1002/2014GL061770/abstract.
- [43] A. Capet, C. Troupin, J. Carstensen, M. Grégoire, and J.-M. Beckers, January 2014. Untangling spatial and temporal trends in the variability of the Black Sea Cold Intermediate Layer and mixed Layer Depth using the DIVA detrending procedure. *Ocean Dynamics*, 64(3):315–324. doi:10.1007/s10236-013-0683-4. URL http://link.springer.com/article/10.1007%2Fs10236-013-0683-4.
- [44] M. Benavides, J. Arístegui, N. S. R. Agawin, X. A. Álvarez Salgado, M. Álvarez, and C. Troupin, 2013. Low contribution of N<sub>2</sub> fixation to new production and excess nitrogen in the subtropical northeast Atlantic margin. *Deep-Sea Research I*, 81(0):36–48. ISSN 0967-0637. doi:10.1016/j.dsr.2013.07.004. URL http://www.sciencedirect.com/science/article/pii/S0967063713001386.
- [45] C. Troupin, E. Mason, J.-M. Beckers, and P. Sangrà, 2012. Generation of the Cape Ghir upwelling filament: a numerical study. *Ocean Modelling*, 41:1–15. doi:10.1016/j.ocemod.2011.09.001. URL http://www.sciencedirect.com/science/article/pii/S1463500311001557.

- [46] C. Troupin, D. Sirjacobs, M. Rixen, P. Brasseur, J.-M. Brankart, A. Barth, A. Alvera-Azcárate, A. Capet, M. Ouberdous, F. Lenartz, M.-E. Toussaint, and J.-M. Beckers, 2012. Generation of analysis and consistent error fields using the Data Interpolating Variational Analysis (Diva). *Ocean Modelling*, 52-53:90–101. doi:10.1016/j.ocemod.2012.05.002. URL http://www.sciencedirect.com/science/article/pii/S1463500312000790.
- [47] L. Tyberghein, H. Verbruggen, K. Pauly, C. Troupin, F. Mineur, and O. De Clerck, 2012. ORACLE: a global environmental dataset for marine species distribution modeling. *Global Ecology and Biogeography*, 21(2):272–281. doi:10.1111/j.1466-8238.2011.00656.x. URL http://onlinelibrary.wiley.com/doi/10.1111/j.1466-8238.2011.00656.x/pdf.
- [48] A. Alvera-Azcárate, C. Troupin, A. Barth, and J.-M. Beckers, 2011. Comparison between satellite and in situ sea surface temperature data in the Western Mediterranean Sea. *Ocean Dynamics*, 61:767–778. ISSN 1616-7341. doi:10.1007/s10236-011-0403-x. URL http://www.springerlink.com/content/r5784271357u5400/.
- [49] E. Mason, F. Colas, J. Molemaker, A. F. Shchepetkin, C. Troupin, J. C. McWilliams, and P. Sangrà, 2011. Seasonal variability of the Canary Current: a numerical study. *Journal of Geophysical Research*, 116(C6):C06001. doi:10.1029/2010JC006665. URL https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2010JC006665.
- [50] C. Troupin, September 2011. Study of the Cape Ghir upwelling filament using variational data analysis and regional numerical model. Ph.D. thesis, University of Liège. URL http://hdl.handle.net/2268/105400. 224 pp.
- [51] A. Barth, A. Alvera-Azcárate, C. Troupin, M. Ouberdous, and J.-M. Beckers, 2010. A web interface for griding arbitrarily distributed in situ data based on Data-Interpolating Variational Analysis (DIVA). Advances in Geosciences, 28:29–37. doi:10.5194/adgeo-28-29-2010. URL www.adv-geosci.net/28/29/2010/.
- [52] F. Lenartz, J.-M. Beckers, J. Chiggiato, B. Mourre, C. Troupin, L. Vandenbulcke, and M. Rixen, 2010. Super-ensemble techniques applied to wave forecast: performance and limitations. *Ocean Science*, 6(2):595–604. doi:10.5194/os-6-595-2010. URL http://www.ocean-sci.net/6/595/2010/os-6-595-2010.html.
- [53] C. Troupin, F. Machín, M. Ouberdous, D. Sirjacobs, A. Barth, and J.-M. Beckers, 2010. High-resolution climatology of the north-east Atlantic using Data-Interpolating Variational Analysis (Diva). *Journal of Geophysical Research*, 115(C8):C08005. doi:10.1029/2009JC005512. URL http://onlinelibrary.wiley.com/doi/10.1029/2009JC005512/epdf.
- [54] C. Troupin, P. Sangrà, and J. Arístegui, 2010. Seasonal variability of the oceanic upper layer and its modulation of biological cycles in the Canary Island region. *Journal of Marine Systems*, 80(3-4):172-183. doi:10.1016/j.jmarsys.2009.10.007. URL http://www.sciencedirect.com/science/article/B6VF5-4XMKB67-1/2/326bcf54e891969eb6191ec534805d35.