**HUBERT LOISEL**

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Research topics

- Ocean color remote sensing  
- Bio-optical algorithms  
- Marine optics  
- Radiative transfer in the ocean  
- Polarisation  
- Ocean carbon cycle and biogeochemistry  
- Dynamics of marine particles

Education

* 1994 : Master degree in fluid dynamics (Paris 6)
* 1995 : Master degree in physical oceanography (Paris 6)
* 1998 : PhD in marine optics (Paris 6)
* 2006 : HDR in marine optics (ULCO)

Publications

**2014**  
- **Hubert Loisel**, Antoine Mangin, Vincent Vantrepotte, David Dessailly, Dat Ngoc Dinh, Philippe Garnesson, Sylvain Ouillon, Jean-Pierre Lefebvre, Xavier Mériaux, Thu Minh Phan. Variability of suspended particulate matter concentration in coastal waters under the Mekong’s influence from ocean color (MERIS) remote sensing over the last decade. Remote Sensing of Environment 150 (2014) 218 ?230.

- **Loisel, Hubert** ; Vantrepotte, Vincent ; Dessailly, David ; et al. Assessment of the colored dissolved organic matter in coastal waters from ocean color remote sensing. OPTICS EXPRESS. Volume : 22. Issue : 11. Pages : 13109-13124.

- Delgado, Ana L. ; Jamet, Cedric ; **Loisel, Hubert ;** et al. 2014. Evaluation of the MODIS-Aqua Sea-Surface Temperature product in the inner and mid-shelves of southwest Buenos Aires Province, Argentina. INTERNATIONAL JOURNAL OF REMOTE SENSING. Volume : 35. Issue : 1. Pages : 306-320.

- Antoine D, M Babin, J-F Berthon, A Bricaud, B Gentili, **H Loisel,** S Maritorena and D Stramski (2014). Shedding Light on the Sea : André Morel’s Legacy to Optical Oceanography, Annual Reviews of Marine Science, 6:15.1 ?15.21.

- Renosh, P. R., François G. Schmitt,**Hubert Loisel**, Alexei Sentchev, Xavier Mériaux. 2014. High frequency variability of particle size distribution and its dependency on turbulence over the sea bottom during re-suspension processes. Continental Shelf Research (2014)

**2013**  
- Werdell Jeremy, Bryan A. Franz, Sean W. Bailey, Gene C. Feldman, Emmanuel Boss, Vittorio E. Brando, Mark Dowell, Takafumi Hirata, Samantha J. Lavender,ZhongPing Lee, **Hubert Loisel**, Stéphane Maritorena, Fréderic Melin5, Timothy S. Moore, Timothy J. Smyth, David Antoine, Emmanuel Devred, Odile Hembise Fanton d ?Andon, and Antoine Mangin. 2013. A generalized ocean color inversion model for retrieving marine inherent optical properties. Applied Optics. 52(10):2019-2037.

- Vantrepotte, V. ; Gensac, E. ; **Loisel, H.** ; et al. Satellite assessment of the coupling between in water suspended particulate matter and mud banks dynamics over the French Guiana coastal domain. JOURNAL OF SOUTH AMERICAN EARTH SCIENCES. Volume : 44. Special Issue : SI. Pages : 25-34.

- Neukermans, G, Ruddick K, **Loisel H**, Roose P. 2012. Optimization and quality control of suspended particulate matter concentration measurement using turbidity measurements. Limnology and Oceanography-Methods. 10:1011-1023. 10.4319/lom.2012.10.1011.

- **Loisel H.**, 2013. GLobCoast : Remote sensing of Coastal water biogeochemical characteristics. International innovation, Research Media Ltd Ed., UK, August 2013, 38-41.

- **Loisel, H.**, V. Vantrepotte, C. Jamet, and D. N. Dinh ?Challenges and new advances in ocean color remote sensing of coastal waters ?. Chapter in Oceanography Research (2013). InTech. Editor E. Zambianchi. ISBN 980-953-307-949-8.

- Werdell, P.J., B.A. Franz, S.W. Bailey, G.C. Feldman, E. Boss, V.E. Brando, M. Dowell, T. Hirata, S.J. Lavender, Z. Lee, **H. Loisel**, S. Maritorena, F. Mélin, T.S. Moore, T.J. Smyth, D. Antoine, E. Devred, O. Hembise Fanton d ?Andon, and A. Mangin (2013). Generalized ocean color inversion model for retrieving marine inherent optical properties, Applied Optics, 52, 2019-2037.

- Zied Ben Mustapha, Séverine Alvain, Cédric Jamet, **Hubert Loisel**, David Dessailly. Automatic classification of water-leaving radiance anomalies from global SeaWiFS imagery : Application to the detection of phytoplankton groups in open ocean waters. Remote Sensing of Environment. 10/2013. DOI :<http://dx.doi.org/10.1016/j.rse.2013.08.046>.

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- Vantrepotte V, Gensac E, **Loisel H**, Gardel A, Dessailly D, Meriaux X. Satellite assessment of the coupling between in water suspended particulate matter and mud banks dynamics over the French Guiana coastal domain. Journal of South American Earth Sciences. 12/2012 ; DOI:10.1016/j.jsames.2012.11.008.

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coastal ocean waters using a neural network inversion, J. Geophys. Res., 117, C10023, doi:10.1029/2012JC008076

- Griet Neukermans, Kevin Ruddick, **Hubert Loisel**, and Patrick Roose (2012), Optimization and quality control of suspended particulate  
matter concentration measurement using turbidity measurements, Limnol. Oceanogr. : Methods 10, 2012, 1011–1023 DOI 10.4319/lom.2012.10.1011

- Qianguo Xing, **Hubert Loisel,** François G. Schmitt, David Dessailly, Yanju Hao, Qiuying Han & Ping Shi (2012) : Fluctuations of satellite-derived chlorophyll concentrations and optical indices at the Southern Yellow Sea, Aquatic Ecosystem Health & Management, 15:2, 168-175 doi:10.1080/14634988.2012.688480

- V. Vantrepotte,**H. Loisel**, D. Dessailly, X. Mériaux. Optical classification of contrasted coastal waters. Remote Sensing of Environment 123 (2012) 306–323 doi:10.1016/j.rse.2012.03.004

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**2011**  
- **Loisel, H.**, V. Vantrepotte, K. Norkvist, X.Mériaux, M. Kheireddine, J. Ras, M. Pujo-Pay, Y. Combet, K. Leblanc, G. Dall’Olmo, R. Mauriac, D. Dessailly and T. Moutin (2011). haracterization of the bio-optical anomaly and diurnal variability of articulate matter, as seen from scattering and backscattering oefficients, in ultra-oligotrophic eddies of the Mediterranean Sea, Biogeosciences, 8, 3295-3317. doi:10.5194/bg-8-3295-2011

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- Vantrepotte, V.,**H. Loisel** , X. Mériaux, G. Neukermans, D. Dessailly, C. Jamet, E. Gensac, and A. Gardel, 2011. Seasonal and inter-annual (2002-2010) variability of the suspended particulate matter as retrieved from satellite ocean color sensor over the French Guianacoastal waters. Journal of Coastal Research, SI 64, ISSN 0749-0208

- Gardel, A., Gensac, E., Anthony, E.J., Lesourd, S., **Loisel, H**. Marin, D., 2011. Wave-formed mud bars : their morphodynamics and role in opportunistic mangrove colonization. Journal of Coastal Research, SI 64, ISSN 0749-0208

- Gensac, E., Gardel, A., Lesourd, S., Anthony, E.J., Proisy, C.,   
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- V. Vantrepotte, **H. Loisel**, F. Mélin, D. Dessailly, and L. Duforêt‐Gaurier. Global particulate matter pool temporal variability over the SeaWiFS period (1997–2007). GEOPHYSICAL RESEARCH LETTERS, VOL. 38, L02605, doi:10.1029/2010GL046167, 2011

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- Robert Frouin, **Hubert Loisel** and Antoine Poteau, "Evaluation of SIMBADA measurements of marine reflectance and aerosol optical thickness during ACE-Asia and AOPEX", Proc. SPIE 7858, 78581K (2010) ; doi:10.1117/12.878769

- Cédric Jamet, **Hubert Loisel** and David Dessailly, "Empirical nonlinear determination of the diffuse attenuation coefficient Kd(490) in coastal waters from ocean color images", Proc. SPIE 7858, 785806 (2010) ; doi:10.1117/12.869730

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- Karin Nordkvist, **Hubert Loisel**, and Lucile Duforêt Gaurier. Cloud masking of SeaWiFS images over coastal waters using spectral variability. 20 July 2009 / Vol. 17, No. 15 / OPTICS EXPRESS 12246

- **H. Loisel**, X. Mériaux, A. Poteau, L. F. Artigas, B. Lubac, A. Gardel, J. Caillaud, and S. Lesourd. Analyze of the inherent optical properties of French Guiana coastal waters for remote sensing applications. Journal of Coastal Research SI 56 (Proceedings of the 10th International Coastal Symposium), 1532 – 1536

**2008**  
- B. Lubac, **H. Loisel**, N. Guiselin, R. Astoreca, L. F. Artigas, and X. Mériaux. 2008. Hyperspectral versus multispectral remote sensing approach to detect phytoplankton blooms in coastal waters : application to a Phaeocystis globosa bloom. Journal of Geophysical Research 113, C06026, doi:10.1029/2007JC004451

- Alvain S., C. Moulin, Y. Dandonneau, and **H. Loisel**. 2008. Seasonnal distribution and succession of dominant phytoplankton groups in the global ocean : a satellite view. Global Biogeochemical Cycles 22 GB3001, doi:10.1029/2007GB003154

- **Loisel H.**, L. Duforet, D. Dessailly, Malik Chami, and P. Dubuisson. 2008. Investigation of the variations in the water leaving polarized reflectance from the POLDER satellite data over two biogeochemical contrasted oceanic areas Optics Express 16, 12905-12918  
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**2007**  
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**2006**  
- Stephane Maritorena, ZhongPing Lee, KePing Du, **Hubert Loisel**, Roland Doerffer, Collin Roesler, Paul Lyon, Akihiko Tanaka, Marcel Babin, and Oleg V. Kopelevich. 2006. Chapter 2. Synthetic and in situ Data Sets for Algorithm Testing. IOCCG (2006). Remote Sensing of Inherent Optical Properties : Fundamentals, Tests of Algorithms, and Applications. Lee, Z. (ed.), Reports of the International Ocean-Colour Coordinating Group, No. 5, IOCCG, Dartmouth, Canada. 89 p

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**2005**  
- M. Levy, Y. Lehahn, J.-M. Andre, L. Memery, **H. Loisel**, and E. Heifetz. 2005. Production regimes in the Northeast Atlantic : a study based on SeaWiFS chlorophyll and OGCM mixed-layer depth. Journal of Geophysical Research 110 : C7, C0701410. 1029/2004JC002771

**2004**  
- Y. Dandonneau, P.-Y. Deschamps, J.-M. Nicolas, **H. Loisel**, J. Blanchot, Y. Montel, F. Thieuleux, and G. Becu. 2004. Seasonnal variability of ocean color and the composition of phytoplankton communities in the North Atlantic, equatorial Pacific and South Pacific. Deep-Sea Research 51 : 303

**2003**  
- C. Dupouy, **H. Loisel**, J. Neveux, C. Moulin, S. Brown, J. Blanchot, A. Lebouteiller and M. Landry. 2003. Microbial absorption and backscattering coefficients from in situ and POLDER satellite during an El Nino-Southern Oscillation cold phase in the equatorial Pacific (180°). Journal of Geophysical Research.108 (C12), 8138.

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**2002**  
- **H. Loisel**, J.M. Nicolas, P.Y.Deschamps, and R. Frouin. 2002. Seasonal and inter-annual variability of the particulate matter in the global ocean. Geophysical Research Letters 29 : 2996

**2001**  
- **H. Loisel** and A. Morel. 2001. Non-Isotropy of the upward radiance field in typical coastal (case 2) waters. International Journal of Remote Sensing. 22 : 275-295

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- **H. Loisel** and D. Stramski. 2000. Estimation of the inherent optical properties of natural waters from irradiance attenuation coefficient and reflectance in the presence of Raman scattering. Applied Optics. 39 : 3001-3011

**1998**  
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