

Publications

On this page, you will find publications of the RMIB GERB Team in peer-reviewed journals.

In Press

2023

-  Akkermans, T., & Clerbaux, N. (2023). Validation of the CLARA-A3 Top-of-Atmosphere Radiative Fluxes Climate Data Record. *Journal of Atmospheric and Oceanic Technology*, 40(11), 1523-1539. doi: [10.1175/JTECH-D-23-0065.1](https://doi.org/10.1175/JTECH-D-23-0065.1)

2022

-  D. Smittarello, B. Smets, J. Barrière, C. Michellier, A. Oth, T. Shreve, R. Grandin, N. Theys, H. Brenot, V. Cayol, P. Allard, C. Caudron, O. Chevreil, F. Darchambeau, P. de Buyl, L. Delhayé, D. Derauw, G. Ganci, H. Geirsson, E. Kamate Kaleghetso, J. Kambale Makundi, I. Kambale Nguomoja, C. Kasereka Mahinda, M. Kervyn, C. Kimanuka Ruriho, H. Le Mével, S. Molendijk, O. Namur, S. Poppe, M. Schmid, J. Subira, C. Wauthier, M. Yalire, N. d'Oreye, F. Kervyn, and A. Syavulisembo Muhindo (2022): Precursor-free eruption triggered by edifice rupture at Nyiragongo volcano, *Nature* 609, 83-88; doi: [10.1038/s41586-022-05047-8](https://doi.org/10.1038/s41586-022-05047-8)

2021

-  T. Akkermans and N. Clerbaux (2021): Retrieval of Daily Mean Top-of-Atmosphere Reflected Solar Flux Using the Advanced Very High Resolution Radiometer (AVHRR) Instruments, *Remote Sensing*, 13(18), 3695; doi: [10.3390/rs13183695](https://doi.org/10.3390/rs13183695)
-  A. Payez, S. Dewitte, and N. Clerbaux (2021): Dual View on Clear-Sky Top-of-Atmosphere Albedos from Meteosat Second Generation Satellites, *Remote Sensing*, 13(9), 1655; doi: [10.3390/rs13091655](https://doi.org/10.3390/rs13091655).

2020

-  T. Akkermans and N. Clerbaux (2020): Narrowband-to-Broadband Conversions for Top-of-Atmosphere Reflectance from the Advanced Very High Resolution Radiometer (AVHRR), *Remote Sensing*, 12(2), 305; doi: [10.3390/rs12020305](https://doi.org/10.3390/rs12020305).
-  N. Clerbaux, T. Akkermans, E. Baudrez, A. Velazquez Blazquez, W. Moutier, J. Moreels and C. Aebi (2020): The Climate Monitoring SAF Outgoing Longwave Radiation from AVHRR, *Remote*

Sensing, 12(2), 929; doi:10.3390/rs12060929.

2019

-  S. Dewitte, N. Clerbaux, J. Cornelis (2019): Decadal Changes of the Reflected Solar Radiation and the Earth Energy Imbalance, *Remote Sensing*, 11, 663; doi:10.3390/rs11060663.
-  W. Moutier, S J. Thomalla, S. Bernard, G. Wind, T J. Ryan-Keogh, M E. Smith, 2019. Evaluation of Chlorophyll-a and POC MODIS Aqua Products in the Southern Ocean, *Remote Sens*, 11(15), 1793; doi:10.3390/rs11151793.

2018

-  S. Dewitte and N. Clerbaux (2018): Decadal Changes of Earth's Outgoing Longwave Radiation, *Remote Sensing*, 10, 1539; doi:10.3390/rs10101539.
- Tornow, F., Barker, H.W., Blázquez, V., Domenech, C. and Fischer, J., 2018. EarthCARE's Broadband Radiometer: Uncertainties Associated with Cloudy Atmospheres. *Journal of Atmospheric and Oceanic Technology*, 35(11), pp.2201-2211.
-  L. Duforêt-Gaurier, D. Dessailly, W. Moutier, H. Loisel, 2018. Assessing the Impact of a Two-Layered Spherical Geometry of Phytoplankton Cells on the Bulk Backscattering Ratio of Marine Particulate Matter, *Appl. Sci.*, 8(12), 2689, doi: 10.3390/app8122689.

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-  M. Urbain, N. Clerbaux, A. Ipe, F. Tornow, R. Hollmann, E. Baudrez, A. Velazquez Blazquez, J. Moreels (2017): The CM SAF TOA Radiation Data Record Using MVIRI and SEVIRI, *Remote Sensing*, 9, 466.
-  F. Tornow, N. Clerbaux, A. Ipe, U. Manon (2017): An improved method to estimate reference cloud-free images for the visible band of geostationary satellites, *International Journal of Remote Sensing*, 38(23), 7220-7241, doi:10.1080/01431161.2017.1372859.
-  S. Dewitte and N. Clerbaux (2017): Measurement of the Earth Radiation Budget at the Top of the Atmosphere — A Review, *Remote Sensing*, 9, 1143; doi:10.3390/rs9111143.

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-  I. Decoster, N. Clerbaux, E. Baudrez, S. Dewitte, A. Ipe, S. Nevens, A. Velazquez-Blazquez, J. Cornelis (2014): Spectral Aging Model Applied to Meteosat First Generation Visible Band, *Remote Sens.*, 6, 2534-2571.

-  I. Decoster (2014): Spectral ageing model for the Meteosat First Generation visible band, *PhD thesis at Vrije Universiteit Brussel*.

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-  I. Decoster, N. Clerbaux, E. Baudrez, S. Dewitte, A. Ipe, S. Nevens, A. Velazquez-Blazquez, J. Cornelis (2013):
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-  A. Ipe (2011):
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-  B. De Paepe, S. Dewitte (2009):
Dust aerosol optical depth retrieval over desert surface, using the SEVIRI window channels, *Journal of Atmospheric and Oceanic Technology*, 26, 704-718.
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Diurnal Asymmetry in the GERB SW fluxes, *IEEE Transactions on Geoscience and Remote Sensing*, **44(12)**, 3585-3600, [doi:10.1109/TGRS.2006.881119](https://doi.org/10.1109/TGRS.2006.881119).
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