

Publications

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

In Press

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. Chevrel, 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
-  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.

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.
-  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.

2017

-  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.

2014

-  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*.

2013

-  I. Decoster, N. Clerbaux, E. Baudrez, S. Dewitte, A. Ipe, S. Nevens, A. Velazquez-Blazquez, J.

Cornelis (2013):

A Spectral Aging Model for the Meteosat-7 Visible Band, *Journal of Atmospheric and Oceanic Technology*, 30(3), 496-509.

-  I. Decoster, N. Clerbaux, Y. Govaerts, E. Baudrez, S. A. Ipe, S. Dewitte, S. Nevens, A. Velazquez-Blazquez, J. Cornelis (2013): Evidence of pre-launch characterization problem of Meteosat-7 visible spectral response, *Remote Sensing Letters*, 4(10), 1008-1017.

2012

-  S. Dewitte, N. Clerbaux, A. Ipe, A. Velazquez, E. Baudrez, S. Nevens, I. Decoster (2012): Climate monitoring with Earth radiation budget measurements, *AIP Conf. Proc.* 1531, 612; doi: 10.1063/1.4804844.
-  N. Clerbaux, E. Baudrez, I. Decoster, S. Dewitte, A. Ipe, S. Nevens, A. Velazquez Blazquez (2012): The climate monitoring SAF TOA radiation "GERB" datasets, *AIP Conf. Proc.* 1531, 652 (2013); doi: 10.1063/1.4804854.

2011

-  A. Ipe (2011): Cloud properties retrieval for climate studies from geostationary orbit, *PhD thesis at Vrije Universiteit Brussel*.
- W. Greuell, E. van Meijgaard, N. Clerbaux, J.-F. Meirink (2011): Evaluation of model-predicted top-of-atmosphere radiation and cloud parameters over Africa with observations from GERB and SEVIRI. *Journal of Climate*, 24(15), 4015-4036.

2009

-  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.
-  N. Clerbaux, J.E. Russell, S. Dewitte, C. Bertrand, D. Caprion, B. De Paepe, L. Gonzalez Sotelino, A. Ipe, R. Bantges, H.E. Brindley (2009): Comparison of GERB instantaneous radiance and flux products 2 with CERES Edition-2 data, *Remote Sensing of Environment*, **113**, 102-114.

2008

-  B. De Paepe, A. Ignatov, A. Ipe, S. Dewitte (2008):

Aerosol retrieval over ocean from SEVIRI for the use in GERB's Earth radiation budget analysis, *Remote Sensing of Environment*, **112**, 2455-2468.

-  C. Bertrand, L. Gonzalez, A. Ipe, N. Clerbaux, S. Dewitte (2008): Improvement in the GERB short wave flux estimations over snow covered surfaces, *Advances in Space Research*, **41(7)**, 1894-1905.
-  N. Clerbaux (2008): Processing of Geostationary Observations for Earth Radiation Budget Studies, *PhD thesis at Vrije Universiteit Brussel*.
-  N. Clerbaux, S. Dewitte, C. Bertrand, D. Caprion, B. De Paepe, L. Gonzalez, A. Ipe, J.E. Russell and H. Brindley (2008): Unfiltering of the Geostationary Earth Radiation Budget (GERB) Data. Part I: Shortwave Radiation, *Journal of Atmospheric and Oceanic Technology*, **25(7)**, 1087-1105.
-  N. Clerbaux, S. Dewitte, C. Bertrand, D. Caprion, B. De Paepe, L. Gonzalez, A. Ipe and J.E. Russell (2008): Unfiltering of the Geostationary Earth Radiation Budget (GERB) Data. Part II: Longwave Radiation, *Journal of Atmospheric and Oceanic Technology*, **25(7)**, 1106-1117.
-  S. Dewitte, L. Gonzalez, N. Clerbaux, A. Ipe, C. Bertrand, B. De Paepe (2008): The Geostationary Earth Radiation Budget Edition 1 data processing algorithms, *Advances in Space Research*, **41(11)**, 1906-1913.

2006

-  C. Bertrand, J. Futyan, A. Ipe, L. Gonzalez, N. Clerbaux (2006): 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).
-  C. Bertrand, N. Clerbaux, A. Ipe, S. Dewitte, L. Gonzalez (2006): Angular distribution models anisotropic correction factors and sun glint: a sensitivity study, *International Journal of Remote Sensing*, **27(9)**, 1741-1757, [doi:10.1080/01431160500107015](https://doi.org/10.1080/01431160500107015).

2005

-  J.E. Harries et al. (2005): The Geostationary Earth Radiation Budget Project, *Bulletin of American Meteorological Society*, **86(7)**, 945-960, [doi:10.1175/BAMS-86-7-945](https://doi.org/10.1175/BAMS-86-7-945).
-  C. Bertrand, N. Clerbaux, A. Ipe, S. Dewitte, L. Gonzalez (2005): Angular Distribution Models, Anisotropic Correction Factors, and Mixed Clear-Scene Types: A Sensitivity Study, *IEEE Transactions on Geoscience and Remote Sensing*, **43(1)**, 92-102, [doi:10.1109/TGRS.2004.83836](https://doi.org/10.1109/TGRS.2004.83836).
- J.M. Haywood, R.P. Allan, I. Culverwell, T. Slingo, S. Milton, J. Edwards, N. Clerbaux (2005): Can desert dust explain the outgoing longwave radiation anomaly over the Sahara during July 2003?. *Journal of Geophysical Research: Atmospheres*, **110(D5)**, 1984-2012.

2004

-  A. Ipe, N. Clerbaux, C. Bertrand, S. Dewitte, L. Gonzalez (2004): Validation and homogenisation of cloud optical depth and cloud fraction retrievals for GERB/SEVIRI scene identification using Meteosat-7 data, *Atmospheric Research*, **72**, 17-37, [doi:10.1016/j.atmosres.2004.03.010](https://doi.org/10.1016/j.atmosres.2004.03.010).
-  C. Bertrand, A. Royer (2004): Aerosol optical depth spatio-temporal characterization over the Canadian BOREAS domain, *International Journal of Remote Sensing*, **25**(15), 2903-2917, [doi:10.1080/01431160310001632657](https://doi.org/10.1080/01431160310001632657).
-  C. Bertrand (2004): Les derniers 1000 ans, *Comptes Rendus Geoscience*, **336**, 741-750, [doi:10.1016/j.crte.2003.12.022](https://doi.org/10.1016/j.crte.2003.12.022).
-  C. Bertrand, N. Clerbaux, A. Ipe, L. Gonzalez (2004): Corrigendum to Estimation of the 2002 Mount Etna eruption cloud radiative forcing from Meteosat-7 data, *Remote Sensing of Environment*, **90**, 135-135.

2003

-  C. Bertrand, N. Clerbaux, A. Ipe, L. Gonzalez (2003): Estimation of the 2002 Mount Etna eruption cloud radiative forcing from Meteosat-7 data, *Remote Sensing of Environment*, **87**, 257-272.
-  A. Ipe, N. Clerbaux, C. Bertrand, S. Dewitte, L. Gonzalez (2003): Pixel-scale composite top-of-the-atmosphere clear-sky reflectances for Meteosat-7 visible data, *Journal of Geophysical Research*, **108**(D19), 4612, [doi:10.1029/2002JD002771](https://doi.org/10.1029/2002JD002771).
-  N. Clerbaux, S. Dewitte, L. Gonzalez, C. Bertrand, B. Nicula, A. Ipe (2003): Outgoing longwave flux estimation: improvement of angular modelling using spectral information, *Remote Sensing of Environment*, **85**, 389-395.
-  N. Clerbaux, A. Ipe, C. Bertrand, S. Dewitte, B. Nicula, L. Gonzalez (2003): Evidence of azimuthal anisotropy for the thermal infrared radiation leaving the Earth's atmosphere, *International Journal of Remote Sensing*, **24**(14), 3005-3010.

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