

Publications

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

In Press

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.

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-  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.

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*.

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-  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.

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-  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.

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-  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.

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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.
-  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.

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-  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):
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-  C. Bertrand, J. Futyan, A. Ipe, L. Gonzalez, N. Clerbaux (2006):
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-  C. Bertrand, N. Clerbaux, A. Ipe, S. Dewitte, L. Gonzalez (2006):
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-  J.E. Harries et al. (2005):
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-  C. Bertrand, N. Clerbaux, A. Ipe, S. Dewitte, L. Gonzalez (2005):
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- 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.

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-  A. Ipe, N. Clerbaux, C. Bertrand, S. Dewitte, L. Gonzalez (2004):
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