

Publications

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

In Press

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.

2018

-  S. Dewitte and N. Clerbaux (2018): Decadal Changes of Earth's Outgoing Longwave Radiation, *Remote Sensing*, 10, 1539; doi:10.3390/rs10101539.

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*.

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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.

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.

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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): 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.

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-  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).

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-  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.

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-  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).
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-  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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