Bastiaan van Diedenhoven

List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/297928/publications.pdf

Version: 2024-02-01

59 papers

1,982 citations

236833 25 h-index 42 g-index

80 all docs 80 docs citations

80 times ranked

1857 citing authors

| # | Article | IF | CITATIONS |
|----|--|-----|-----------|
| 1 | The Profiles of the 3–12 Micron Polycyclic Aromatic Hydrocarbon Features. Astrophysical Journal, 2004, 611, 928-939. | 1.6 | 224 |
| 2 | Remote Sensing of Droplet Number Concentration in Warm Clouds: A Review of the Current State of Knowledge and Perspectives. Reviews of Geophysics, 2018, 56, 409-453. | 9.0 | 185 |
| 3 | Confronting the Challenge of Modeling Cloud and Precipitation Microphysics. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS001689. | 1.3 | 154 |
| 4 | Analysis of fine-mode aerosol retrieval capabilities by different passive remote sensing instrument designs. Optics Express, 2012, 20, 21457. | 1.7 | 96 |
| 5 | Accuracy assessments of cloud droplet size retrievals from polarized reflectance measurements by the research scanning polarimeter. Remote Sensing of Environment, 2012, 125, 92-111. | 4.6 | 90 |
| 6 | A FIRE-ACE/SHEBA Case Study of Mixed-Phase Arctic Boundary Layer Clouds: Entrainment Rate Limitations on Rapid Primary Ice Nucleation Processes. Journals of the Atmospheric Sciences, 2012, 69, 365-389. | 0.6 | 77 |
| 7 | Intercomparison of biomass burning aerosol optical properties from in situ and remote-sensing instruments in ORACLES-2016. Atmospheric Chemistry and Physics, 2019, 19, 9181-9208. | 1.9 | 69 |
| 8 | Toward ice formation closure in Arctic mixed-phase boundary layer clouds during ISDAC. Journal of Geophysical Research, 2011, 116, . | 3.3 | 65 |
| 9 | Remote sensing of ice crystal asymmetry parameter using multi-directional polarization measurements $\hat{a} \in \text{``Part 1: Methodology and evaluation with simulated measurements. Atmospheric Measurement Techniques, 2012, 5, 2361-2374.}$ | 1.2 | 65 |
| 10 | Aerosol retrieval from multiangle, multispectral photopolarimetric measurements: importance of spectral range and angular resolution. Atmospheric Measurement Techniques, 2015, 8, 2625-2638. | 1.2 | 62 |
| 11 | Remote sensing of ice crystal asymmetry parameter using multi-directional polarization measurements $\hat{a} \in \text{``Part 2: Application to the Research Scanning Polarimeter. Atmospheric Chemistry and Physics, 2013, 13, 3185-3203.}$ | 1.9 | 53 |
| 12 | Surface pressure retrieval from SCIAMACHY measurements in the O ₂ A Band: validation of the measurements and sensitivity on aerosols. Atmospheric Chemistry and Physics, 2005, 5, 2109-2120. | 1.9 | 51 |
| 13 | Passive remote sensing of aerosol layer height using nearâ€UV multiangle polarization measurements. Geophysical Research Letters, 2016, 43, 8783-8790. | 1.5 | 50 |
| 14 | Constraining the Twomey effect from satellite observations: issues and perspectives. Atmospheric Chemistry and Physics, 2020, 20, 15079-15099. | 1.9 | 49 |
| 15 | A Flexible Parameterization for Shortwave Optical Properties of Ice Crystals*. Journals of the Atmospheric Sciences, 2014, 71, 1763-1782. | 0.6 | 42 |
| 16 | Polarimetric retrievals of surface and cirrus clouds properties in the region affected by the Deepwater Horizon oil spill. Remote Sensing of Environment, 2012, 121, 389-403. | 4.6 | 41 |
| 17 | Variation of ice crystal size, shape, and asymmetry parameter in tops of tropical deep convective clouds. Journal of Geophysical Research D: Atmospheres, 2014, 119, 11,809-11,825. | 1.2 | 40 |
| 18 | Evaluation of Hydrometeor Phase and Ice Properties in Cloud-Resolving Model Simulations of Tropical Deep Convection Using Radiance and Polarization Measurements. Journals of the Atmospheric Sciences, 2012, 69, 3290-3314. | 0.6 | 39 |

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|----|--|-----|-----------|
| 19 | Retrieval of cloud parameters from satelliteâ€based reflectance measurements in the ultraviolet and the oxygen Aâ€band. Journal of Geophysical Research, 2007, 112, . | 3.3 | 34 |
| 20 | Assessment of the accuracy of the conventional ray-tracing technique: Implications in remote sensing and radiative transfer involving ice clouds. Journal of Quantitative Spectroscopy and Radiative Transfer, 2014, 146, 158-174. | 1.1 | 29 |
| 21 | Vertical variation of ice particle size in convective cloud tops. Geophysical Research Letters, 2016, 43, 4586-4593. | 1.5 | 28 |
| 22 | Combined neural network/Phillips–Tikhonov approach to aerosol retrievals over land from the NASA Research Scanning Polarimeter. Atmospheric Measurement Techniques, 2017, 10, 4235-4252. | 1.2 | 28 |
| 23 | Intercomparison of airborne multi-angle polarimeter observations from the Polarimeter Definition Experiment. Applied Optics, 2019, 58, 650. | 0.9 | 28 |
| 24 | Liquid water cloud properties during the Polarimeter Definition Experiment (PODEX). Remote Sensing of Environment, 2015, 169, 20-36. | 4.6 | 27 |
| 25 | Cloud thermodynamic phase detection with polarimetrically sensitive passive sky radiometers. Atmospheric Measurement Techniques, 2015, 8, 1537-1554. | 1.2 | 26 |
| 26 | Polarized view of supercooled liquid water clouds. Remote Sensing of Environment, 2016, 181, 96-110. | 4.6 | 23 |
| 27 | Remote sensing of multiple cloud layer heights using multi-angular measurements. Atmospheric Measurement Techniques, 2017, 10, 2361-2375. | 1.2 | 21 |
| 28 | Photopolarimetric retrievals of snow properties. Cryosphere, 2015, 9, 1933-1942. | 1.5 | 20 |
| 29 | An Overview of Atmospheric Features Over the Western North Atlantic Ocean and North American East Coast – Part 1: Analysis of Aerosols, Gases, and Wet Deposition Chemistry. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD032592. | 1.2 | 18 |
| 30 | Polarimetric retrievals of cloud droplet number concentrations. Remote Sensing of Environment, 2019, 228, 227-240. | 4.6 | 17 |
| 31 | The prevalence of the 22° halo in cirrus clouds. Journal of Quantitative Spectroscopy and Radiative Transfer, 2014, 146, 475-479. | 1.1 | 16 |
| 32 | Global Statistics of Ice Microphysical and Optical Properties at Tops of Optically Thick Ice Clouds. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2019JD031811. | 1.2 | 16 |
| 33 | An evaluation of ice formation in largeâ€eddy simulations of supercooled Arctic stratocumulus using groundâ€based lidar and cloud radar. Journal of Geophysical Research, 2009, 114, . | 3.3 | 15 |
| 34 | Derivation of physical and optical properties of mid-latitude cirrus ice crystals for a size-resolved cloud microphysics model. Atmospheric Chemistry and Physics, 2016, 16, 7251-7283. | 1.9 | 14 |
| 35 | Remote Sensing of Crystal Shapes in Ice Clouds. Springer Series in Light Scattering, 2018, , 197-250. | 1.8 | 13 |
| 36 | The effect of roughness model on scattering properties of ice crystals. Journal of Quantitative Spectroscopy and Radiative Transfer, 2016, 178, 134-141. | 1.1 | 11 |

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| 37 | Retrieval of liquid water cloud properties from POLDER-3 measurements using a neural network ensemble approach. Atmospheric Measurement Techniques, 2019, 12, 1697-1716. | 1.2 | 11 |
| 38 | Efficient vector radiative transfer calculations in vertically inhomogeneous cloudy atmospheres. Applied Optics, 2006, 45, 5993. | 2.1 | 10 |
| 39 | On Averaging Aspect Ratios and Distortion Parameters over Ice Crystal Population Ensembles for Estimating Effective Scattering Asymmetry Parameters. Journals of the Atmospheric Sciences, 2016, 73, 775-787. | 0.6 | 10 |
| 40 | Vertical profiles of droplet size distributions derived from cloud-side observations by the research scanning polarimeter: Tests on simulated data. Atmospheric Research, 2020, 239, 104924. | 1.8 | 10 |
| 41 | The Aerosol Characterization from Polarimeter and Lidar (ACEPOL) airborne field campaign. Earth System Science Data, 2020, 12, 2183-2208. | 3.7 | 10 |
| 42 | Retrieval of cloud properties from nearâ€ultraviolet, visible, and nearâ€infrared satelliteâ€based Earth reflectivity spectra: A comparative study. Journal of Geophysical Research, 2008, 113, . | 3.3 | 9 |
| 43 | An evaluation of the liquid cloud droplet effective radius derived from MODIS, airborne remote sensing, and in situ measurements from CAMP ² Ex. Atmospheric Chemistry and Physics, 2022, 22, 8259-8285. | 1.9 | 7 |
| 44 | Simultaneous Retrieval of Trace Gases, Aerosols, and Cirrus Using RemoTAP—The Global Orbit Ensemble Study for the CO2M Mission. Frontiers in Remote Sensing, 0, 3, . | 1.3 | 7 |
| 45 | Influence of Humidified Aerosol on Lidar Depolarization Measurements below Ice-Precipitating Arctic Stratus. Journal of Applied Meteorology and Climatology, 2011, 50, 2184-2192. | 0.6 | 6 |
| 46 | Observations of Aerosolâ€Cloud Interactions During the North Atlantic Aerosol and Marine Ecosystem Study. Geophysical Research Letters, 2020, 47, e2019GL085851. | 1.5 | 6 |
| 47 | A Flexible Parameterization for Shortwave and Longwave Optical Properties of Ice Crystals and Derived Bulk Optical Properties for Climate Models. Journals of the Atmospheric Sciences, 2020, 77, 1245-1260. | 0.6 | 6 |
| 48 | In-flight validation of SPEX airborne spectro-polarimeter onboard NASA's research aircraft ER-2. , 2019, , . | | 6 |
| 49 | Inference of Precipitation in Warm Stratiform Clouds Using Remotely Sensed Observations of the Cloud Top Droplet Size Distribution. Geophysical Research Letters, 2021, 48, e2021GL092547. | 1.5 | 5 |
| 50 | Simultaneous Aerosol and Ocean Properties From the PolCube CubeSat Polarimeter. Frontiers in Remote Sensing, 2021, 2, . | 1.3 | 5 |
| 51 | Low-level liquid cloud properties during ORACLES retrieved using airborne polarimetric measurements and a neural network algorithm. Atmospheric Measurement Techniques, 2020, 13, 3447-3470. | 1.2 | 5 |
| 52 | Above-aircraft cirrus cloud and aerosol optical depth from hyperspectral irradiances measured by a total-diffuse radiometer. Atmospheric Measurement Techniques, 2022, 15, 1373-1394. | 1.2 | 5 |
| 53 | Polarimeter + Lidar–Derived Aerosol Particle Number Concentration. Frontiers in Remote Sensing, 2022, 3, . | 1.3 | 5 |
| 54 | Joint cloud water path and rainwater path retrievals from airborne ORACLES observations. Atmospheric Chemistry and Physics, 2021, 21, 5513-5532. | 1.9 | 4 |

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|----|---|-----|-----------|
| 55 | Variation of Ice Microphysical Properties With Temperature and Humidity at Tops of Convective Clouds. Geophysical Research Letters, 2021, 48, e2021GL093673. | 1.5 | 4 |
| 56 | Application of Radon Transform to Multi-Angle Measurements Made by the Research Scanning Polarimeter: A New Approach to Cloud Tomography. Part I: Theory and Tests on Simulated Data. Frontiers in Remote Sensing, 2021, 2, . | 1.3 | 3 |
| 57 | A Classification of Ice Crystal Habits Using Combined Lidar and Scanning Polarimeter Observations during the SEAC4RS Campaign. Journal of Atmospheric and Oceanic Technology, 2020, 37, 2185-2196. | 0.5 | 2 |
| 58 | Effects of clouds on ozone profile retrievals from satellite measurements in the ultraviolet. Journal of Geophysical Research, 2008, 113 , . | 3.3 | 1 |
| 59 | Analysis of Scattering Angle Sampling by Multi-Angle Imaging Polarimeters for Different Orbit Geometries. Frontiers in Remote Sensing, 2022, 3, . | 1.3 | 1 |