

Sandrine Guerlet

List of Publications by Year in descending order

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47
papers

2,626
citations

186265

28
h-index

223800

46
g-index

54
all docs

54
docs citations

54
times ranked

2451
citing authors

#	ARTICLE	IF	CITATIONS
1	Toward accurate CO ₂ and CH ₄ observations from GOSAT. <i>Geophysical Research Letters</i> , 2011, 38, n/a-n/a.	4.0	355
2	Global CO ₂ fluxes estimated from GOSAT retrievals of total column CO ₂ . <i>Atmospheric Chemistry and Physics</i> , 2013, 13, 8695-8717.	4.9	251
3	Methane retrievals from Greenhouse Gases Observing Satellite (GOSAT) shortwave infrared measurements: Performance comparison of proxy and physics retrieval algorithms. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	128
4	Inverse modelling of CH ₄ emissions for 2010–2011 using different satellite retrieval products from GOSAT and SCIAMACHY. <i>Atmospheric Chemistry and Physics</i> , 2015, 15, 113-133.	4.9	126
5	The Atmospheric Chemistry Suite (ACS) of Three Spectrometers for the ExoMars 2016 Trace Gas Orbiter. <i>Space Science Reviews</i> , 2018, 214, 1.	8.1	119
6	The Greenhouse Gas Climate Change Initiative (GHG-CCI): Comparison and quality assessment of near-surface-sensitive satellite-derived CO ₂ and CH ₄ global data sets. <i>Remote Sensing of Environment</i> , 2015, 162, 344-362.	11.0	112
7	Impact of aerosol and thin cirrus on retrieving and validating XCO ₂ from GOSAT shortwave infrared measurements. <i>Journal of Geophysical Research D: Atmospheres</i> , 2013, 118, 4887-4905.	3.3	111
8	Interpreting seasonal changes in the carbon balance of southern Amazonia using measurements of XCO ₂ and chlorophyll fluorescence from GOSAT. <i>Geophysical Research Letters</i> , 2013, 40, 2829-2833.	4.0	89
9	An equatorial oscillation in Saturn's middle atmosphere. <i>Nature</i> , 2008, 453, 200-202.	27.8	88
10	Recent advances in collisional effects on spectra of molecular gases and their practical consequences. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2018, 213, 178-227.	2.3	85
11	Vertical and meridional distribution of ethane, acetylene and propane in Saturn's stratosphere from CIRS/Cassini limb observations. <i>Icarus</i> , 2009, 203, 214-232.	2.5	78
12	The Greenhouse Gas Climate Change Initiative (GHG-CCI): comparative validation of GHG-CCI SCIAMACHY/ENVISAT and TANSO-FTS/GOSAT CO ₂ and CH ₄ retrieval algorithm products with measurements from the TCCON. <i>Atmospheric Measurement Techniques</i> , 2014, 7, 1723-1744.	3.1	70
13	Comparison of CH ₄ inversions based on 15 months of GOSAT and SCIAMACHY observations. <i>Journal of Geophysical Research D: Atmospheres</i> , 2013, 118, 11,807.	3.3	66
14	Reduced carbon uptake during the 2010 Northern Hemisphere summer from GOSAT. <i>Geophysical Research Letters</i> , 2013, 40, 2378-2383.	4.0	65
15	Seasonal change on Saturn from Cassini/CIRS observations, 2004–2009. <i>Icarus</i> , 2010, 208, 337-352.	2.5	63
16	A joint effort to deliver satellite retrieved atmospheric CO ₂ concentrations for surface flux inversions: the ensemble median algorithm EMMA. <i>Atmospheric Chemistry and Physics</i> , 2013, 13, 1771-1780.	4.9	62
17	Scientific rationale for Saturn's in situ exploration. <i>Planetary and Space Science</i> , 2014, 104, 29-47.	1.7	49
18	Effects of atmospheric light scattering on spectroscopic observations of greenhouse gases from space. Part 2: Algorithm intercomparison in the GOSAT data processing for CO ₂ retrievals over TCCON sites. <i>Journal of Geophysical Research D: Atmospheres</i> , 2013, 118, 1493-1512.	3.3	46

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19	Influence of differences in current GOSAT CO_2 retrievals on surface flux estimation. <i>Geophysical Research Letters</i> , 2014, 41, 2598-2605.	4.0	45
20	Global climate modeling of Saturn's atmosphere. Part I: Evaluation of the radiative transfer model. <i>Icarus</i> , 2014, 238, 110-124.	2.5	45
21	Effects of atmospheric light scattering on spectroscopic observations of greenhouse gases from space: Validation of PPDF-based CO_2 retrievals from GOSAT. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	42
22	Evolution of the equatorial oscillation in Saturn's stratosphere between 2005 and 2010 from Cassini/CIRS limb data analysis. <i>Geophysical Research Letters</i> , 2011, 38, .	4.0	41
23	Atmospheric structure and helium abundance on Saturn from Cassini/UVIS and CIRS observations. <i>Icarus</i> , 2018, 307, 161-171.	2.5	41
24	Evidence for anomalous cloud particles at the poles of Venus. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	38
25	Disruption of Saturn's quasi-periodic equatorial oscillation by the great northern storm. <i>Nature Astronomy</i> , 2017, 1, 765-770.	10.1	37
26	A hexagon in Saturn's northern stratosphere surrounding the emerging summertime polar vortex. <i>Nature Communications</i> , 2018, 9, 3564.	12.8	36
27	Meridional distribution of $\text{CH}_3\text{C}_2\text{H}$ and C_4H_2 in Saturn's stratosphere from CIRS/Cassini limb and nadir observations. <i>Icarus</i> , 2010, 209, 682-695.	2.5	35
28	Global climate modeling of Saturn's atmosphere. Part II: Multi-annual high-resolution dynamical simulations. <i>Icarus</i> , 2020, 335, 113377.	2.5	31
29	A simple empirical model estimating atmospheric CO_2 background concentrations. <i>Atmospheric Measurement Techniques</i> , 2012, 5, 1349-1357.	3.1	29
30	The detection of benzene in Saturn's upper atmosphere. <i>Geophysical Research Letters</i> , 2016, 43, 7895-7901.	4.0	29
31	Seasonal changes in Saturn's stratosphere inferred from Cassini/CIRS limb observations. <i>Icarus</i> , 2015, 258, 224-238.	2.5	22
32	Using ocean-glint scattered sunlight as a diagnostic tool for satellite remote sensing of greenhouse gases. <i>Atmospheric Measurement Techniques</i> , 2013, 6, 2509-2520.	3.1	20
33	From Voyager-IRIS to Cassini-CIRS: Interannual variability in Saturn's stratosphere?. <i>Icarus</i> , 2014, 233, 281-292.	2.5	20
34	Equatorial Oscillation and Planetary Wave Activity in Saturn's Stratosphere Through the Cassini Epoch. <i>Journal of Geophysical Research E: Planets</i> , 2018, 123, 246-261.	3.6	19
35	Stratospheric benzene and hydrocarbon aerosols detected in Saturn's auroral regions. <i>Astronomy and Astrophysics</i> , 2015, 580, A89.	5.1	19
36	<i>Herschel</i> map of Saturn's stratospheric water, delivered by the plumes of Enceladus. <i>Astronomy and Astrophysics</i> , 2019, 630, A87.	5.1	15

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37	Stratospheric aftermath of the 2010 Storm on Saturn as observed by the TEXES instrument. I. Temperature structure. <i>Icarus</i> , 2016, 277, 196-214.	2.5	12
38	Radiative-equilibrium model of Jupiter's atmosphere and application to estimating stratospheric circulations. <i>Icarus</i> , 2020, 351, 113935.	2.5	11
39	Thermal Tides in the Martian Atmosphere Near Northern Summer Solstice Observed by ACS/TIRVIM Onboard TGO. <i>Geophysical Research Letters</i> , 2022, 49, .	4.0	10
40	Thermal Structure and Aerosols in Mars Atmosphere From TIRVIM/ACS Onboard the ExoMars Trace Gas Orbiter: Validation of the Retrieval Algorithm. <i>Journal of Geophysical Research E: Planets</i> , 2022, 127, .	3.6	9
41	Global climate modeling of Saturn's atmosphere. Part IV: Stratospheric equatorial oscillation. <i>Icarus</i> , 2021, 354, 114042.	2.5	8
42	The impact of spectral resolution on satellite retrieval accuracy of CO ₂ and CH ₄ . <i>Atmospheric Measurement Techniques</i> , 2014, 7, 1105-1119.	3.1	6
43	Saturn's Seasonally Changing Atmosphere. , 2018, , 251-294.		6
44	Multilayer hazes over Saturn's hexagon from Cassini ISS limb images. <i>Nature Communications</i> , 2020, 11, 2281.	12.8	6
45	Joint evolution of equatorial oscillation and interhemispheric circulation in Saturn's stratosphere. <i>Nature Astronomy</i> , 2022, 6, 804-811.	10.1	6
46	Mapping the zonal winds of Jupiter's stratospheric equatorial oscillation. <i>Astronomy and Astrophysics</i> , 2021, 652, A125.	5.1	4
47	Radiative-dynamical Simulation of Jupiter's Stratosphere and Upper Troposphere. <i>Astrophysical Journal</i> , 2021, 921, 174.	4.5	2