Philippe Baron

List of Publications by Year
in descending order

66 papers	2,132 citations	471509 17 h-index	243625 44 g-index
75 all docs	75 docs citations	75 times ranked	2100 citing authors

#	Article	IF	Citations
1	Transiting exoplanets from the CoRoT space mission. Astronomy and Astrophysics, 2009, 506, 287-302.	5.1	460
2	An overview of the Odin atmospheric mission. Canadian Journal of Physics, 2002, 80, 309-319.	1.1	403
3	At the Dawn of a New Era in Terahertz Technology. Proceedings of the IEEE, 2007, 95, 1611-1623.	21.3	185
4	Validation of ozone measurements from the Atmospheric Chemistry Experiment (ACE). Atmospheric Chemistry and Physics, 2009, 9, 287-343.	4.9	134
5	Coherent 2 μm differential absorption and wind lidar with conductively cooled laser and two-axis scanning device. Applied Optics, 2010, 49, 1809.	2.1	96
6	Validation of ACE-FTS v2.2 methane profiles from the upper troposphere to the lower mesosphere. Atmospheric Chemistry and Physics, 2008, 8, 2421-2435.	4.9	85
7	Moliere (v5): a versatile forward- and inversion model for the millimeter and sub-millimeter wavelength range. Journal of Quantitative Spectroscopy and Radiative Transfer, 2004, 83, 529-554.	2.3	82
8	Observations of water in comets with Odin. Astronomy and Astrophysics, 2003, 402, L55-L58.	5.1	65
9	The Odin satellite. Astronomy and Astrophysics, 2003, 402, L35-L38.	5.1	50
10	The Level 2 research product algorithms for the Superconducting Submillimeter-Wave Limb-Emission Sounder (SMILES). Atmospheric Measurement Techniques, 2011, 4, 2105-2124.	3.1	49
11	Observation of horizontal winds in the middle-atmosphere between 30° S and 55° N during the northern winter 2009–2010. Atmospheric Chemistry and Physics, 2013, 13, 6049-6064.	4.9	35
12	Studies for the Odin sub-millimetre radiometer. II. Retrieval methodology. Canadian Journal of Physics, 2002, 80, 341-356.	1.1	34
13	Studies for the Odin sub-millimetre radiometer: III. Performance simulations. Canadian Journal of Physics, 2002, 80, 357-373.	1.1	29
14	Validation of stratospheric and mesospheric ozone observed by SMILES from International Space Station. Atmospheric Measurement Techniques, 2013, 6, 2311-2338.	3.1	28
15	Studies for the Odin sub-millimetre radiometer: I. Radiative transfer and instrument simulation. Canadian Journal of Physics, 2002, 80, 321-340.	1.1	22
16	Strato-mesospheric ClO observations by SMILES: error analysis and diurnal variation. Atmospheric Measurement Techniques, 2012, 5, 2809-2825.	3.1	21
17	Ground-based integrated path coherent differential absorption lidar measurement of CO<sub>2</sub>: foothill target return. Atmospheric Measurement Techniques, 2013, 6, 1359-1369.	3.1	21
18	Partial CO2 Column-Averaged Dry-Air Mixing Ratio from Measurements by Coherent 2-μm Differential Absorption and Wind Lidar with Laser Frequency Offset Locking. Journal of Atmospheric and Oceanic Technology, 2012, 29, 1169-1181.	1.3	19

#	ARTICLE	IF	CITATIONS
19	Overview of the Martian atmospheric submillimetre sounder FIRE. Planetary and Space Science, 2012, 63-64, 62-82.	1.7	18
20	Diurnal variation of stratospheric and lower mesospheric HOCl, ClO and HO&lt;sub&gt;2&lt;/sub&gt; at the equator: comparison of 1-D model calculations with measurements by satellite instruments. Atmospheric Chemistry and Physics, 2013, 13, 7587-7606.	4.9	17
21	Feasibility Study for Future Space-Borne Coherent Doppler Wind Lidar, Part 1: Instrumental Overview for Global Wind Profile Observation. Journal of the Meteorological Society of Japan, 2017, 95, 301-317.	1.8	17
22	Improving precipitation nowcasting using a three-dimensional convolutional neural network model from Multi Parameter Phased Array Weather Radar observations. Atmospheric Research, 2021, 262, 105774.	4.1	17
23	Wide-band observations of the 557ÂGHz water line in Mars with Odin. Astronomy and Astrophysics, 2005, 435, 765-772.	5.1	16
24	A correction model of dispersive troposphere delays for the ACES microwave link. Radio Science, 2013, 48, 131-142.	1.6	16
25	Simulation study for the Stratospheric Inferred Winds (SIW) sub-millimeter limb sounder. Atmospheric Measurement Techniques, 2018, 11, 4545-4566.	3.1	16
26	SMILES-2 Mission for Temperature, Wind, and Composition in the Whole Atmosphere. Scientific Online Letters on the Atmosphere, 2017, 13A, 13-18.	1.4	15
27	A ground-based microwave radiometer dedicated to stratospheric ozone monitoring. Journal of Geophysical Research, 1998, 103, 22147-22161.	3.3	14
28	Simultaneous retrievals of temperature and volume mixing ratio constituents from nonoxygen Odin submillimeter radiometer bands. Applied Optics, 2001, 40, 6102.	2.1	13
29	Influence of CO_2 line profiles on radiative and radiativeâ€ convective equilibrium states of the Venus lower atmosphere. Journal of Geophysical Research, 2010, 115, .	3.3	13
30	Pressure broadening coefficients of induced by for Venus atmosphere. Journal of Quantitative Spectroscopy and Radiative Transfer, 2009, 110, 2027-2036.	2.3	11
31	Comparison of SMILES ClO profiles with satellite, balloon-borne and ground-based measurements. Atmospheric Measurement Techniques, 2013, 6, 3325-3347.	3.1	11
32	Potential of radiotelescopes for atmospheric line observations: I. Observation principles and transmission curves for selected sites. Planetary and Space Science, 2009, 57, 1419-1433.	1.7	10
33	HO_2 measurements in the stratosphere and the mesosphere from the sub-millimetre limb sounder Odin/SMR. International Journal of Remote Sensing, 2009, 30, 4195-4208.	2.9	9
34	Feasibility Study for Future Spaceborne Coherent Doppler Wind Lidar, Part 2: Measurement Simulation Algorithms and Retrieval Error Characterization. Journal of the Meteorological Society of Japan, 2017, 95, 319-342.	1.8	9
35	Measurement Performance Assessment of Future Space-Borne Doppler Wind Lidar for Numerical Weather Prediction. Scientific Online Letters on the Atmosphere, 2016, 12, 55-59.	1.4	8
36	Studying the potential of terahertz radiation for deriving ice cloud microphysical information. , 2008, , .		7

#	Article	IF	Citations
37	Measurement of stratospheric and mesospheric winds with a submillimeter wave limb sounder: results from JEM/SMILES and simulation study for SMILES-2. Proceedings of SPIE, 2015, , .	0.8	7
38	Feasibility Study for Future Space-Borne Coherent Doppler Wind Lidar, Part 3: Impact Assessment Using Sensitivity Observing System Simulation Experiments. Journal of the Meteorological Society of Japan, 2018, 96, 179-199.	1.8	7
39	Quality assessment of ground-based microwave measurements of chlorine monoxide, ozone, and nitrogen dioxide from the NDSC radiometer at the Plateau de Bure. Annales Geophysicae, 2004, 22, 1903-1915.	1.6	7
40	European Minor Constituent Radiometer: A New Millimeter Wave Receiver for Atmospheric Research. Journal of Infrared, Millimeter and Terahertz Waves, 2001, 22, 1555-1575.	0.6	6
41	Performance Assessment of Superconducting Submillimeter-Wave Limb-Emission Sounder-2 (SMILES-2). , 2019, , .		5
42	Sensitivity study of SMILES-2 for chemical species. Proceedings of SPIE, 2015, , .	0.8	4
43	Potential for the measurement of mesosphere and lower thermosphere (MLT) wind, temperature, density and geomagnetic field with Superconducting Submillimeter-Wave Limb-Emission Sounder 2 (SMILES-2). Atmospheric Measurement Techniques, 2020, 13, 219-237.	3.1	4
44	JEM/SMILES observation capability. Proceedings of SPIE, 2009, , .	0.8	3
45	Future Doppler lidar wind measurement from space in Japan. Proceedings of SPIE, 2012, , .	0.8	3
46	Conceptual Study of Superconducting Submillimeter-Wave Limb-Emission Sounder-2 (Smiles-2) Receiver. , 2019, , .		3
47	Smiles-2 Band Selection Study for Chemical Species. , 2019, , .		3
48	A Proposal for Satellite Observation of the Whole Atmosphere - Superconducting Submillimeter-Wave Limb-Emission Sounder (Smiles-2). , 2019, , .		3
49	Atmospheric Transmission at Dome C between 0 and 10 THz. EAS Publications Series, 2010, 40, 327-332.	0.3	2
50	Gain nonlinearity calibration of the SMILES receiver. , 2011, , .		2
51	Profiling tropospheric water vapour with a coherent infrared differential absorption lidar: a sensitivity analysis. , 2012, , .		2
52	Tangent height accuracy of superconducting Submillimeter-Wave Limb-Emission Sounder (SMILES) on International Space Station (ISS). , 2012, , .		2
53	Study on measurement performance of future space-based Doppler wind lidar in Japan. , 2017, , .		2
54	Superconducting Submillimeter-Wave Limb-Emission Sounder, Smiles-2, for Middle and Upper Atmospheric Study. , 2018, , .		2

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55	Analysis of variations in factors of specific absorption of sub-terahertz waves in the earth’s atmosphere. , 2020, , .		2
56	Development of coherent 2-µm differential absorption and wind lidar with laser frequency offset locking technique. , 2010, , .		1
57	Improvement in calibration algorithm of the AOS (acousto-optical spectrometer) using in-orbit measurement data. , 2012, , .		1
58	Comparative study of deep neural networks for very short-term prediction of torrential rains using polarimetric Phased-Array Weather Radar (MP-PAWR). , 2021, , .		1
59	Observation Capability of a Ground-Based Terahertz Radiometer for Vertical Profiles of Oxygen and Water Abundances in Martian Atmosphere. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-11.	6.3	1
60	<title>EMCOR radiometer: calibration and first tests</title>. , 1998, 3503, 362.		0
61	Simulations for observation of tropospheric pollutants using infrared spectroscopy from geostationary orbit. Proceedings of SPIE, 2008, , .	0.8	0
62	Tropospheric water vapor retrieval from a nadir THz/FIR sounder. , 2008, , .		0
63	2-µm coherent lidar for CO$_2$ and wind measurements. Proceedings of SPIE, 2013, , .	0.8	0
64	Upper-stratosphere/mesosphere temperature, wind speed, H_2O and O_3 measurements using sub-mm limb sounder. , 2015, , .		0
65	Developments to Enhance the Feasibility of SMILES-2 Mission. , 2018, , .		0
66	Very short-term prediction of torrential rains using polarimetric phased-array radar (MP-PAWR) and deep neural networks. , 2021, , .		0