Luigi Toffolatti

List of Publications by Year
in descending order

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151 papers	36,874 citations	5896 81 h-index	9589 142 g-index
153 all docs	153 docs citations	153 times ranked	19180 citing authors

#	Article	IF	Citations
1	Planck2015 results. Astronomy and Astrophysics, 2016, 594, A13.	5.1	8,344
2	Planck2013 results. XVI. Cosmological parameters. Astronomy and Astrophysics, 2014, 571, A16.	5.1	4,703
3	Planck2015 results. Astronomy and Astrophysics, 2016, 594, A20.	5.1	1,233
4	Planck2013 results. I. Overview of products and scientific results. Astronomy and Astrophysics, 2014, 571, A1.	5.1	948
5	Joint Analysis of BICEP2/Keck ArrayandPlanckData. Physical Review Letters, 2015, 114, 101301.	7.8	819
6	Planck2013 results. XXII. Constraints on inflation. Astronomy and Astrophysics, 2014, 571, A22.	5.1	806
7	Planck2015 results. Astronomy and Astrophysics, 2016, 594, A1.	5.1	738
8	Planck2015 results. Astronomy and Astrophysics, 2016, 594, A11.	5.1	613
9	Planck2015 results. Astronomy and Astrophysics, 2016, 594, A14.	5.1	568
10	Planck2013 results. XI. All-sky model of thermal dust emission. Astronomy and Astrophysics, 2014, 571, A11.	5.1	566
11	Planck2015 results. Astronomy and Astrophysics, 2016, 594, A27.	5.1	535
12	Planck2015 results. Astronomy and Astrophysics, 2016, 594, A24.	5.1	525
13	Planck2013 results. XX. Cosmology from Sunyaevâ€“Zeldovich cluster counts. Astronomy and Astrophysics, 2014, 571, A20.	5.1	465
14	Planck2015 results. Astronomy and Astrophysics, 2016, 594, A17.	5.1	440
15	Planckearly results. I. ThePlanckmission. Astronomy and Astrophysics, 2011, 536, A1.	5.1	394
16	Planck2015 results. Astronomy and Astrophysics, 2016, 594, A10.	5.1	384
17	Planck2013 results. XXIX. ThePlanckcatalogue of Sunyaev-Zeldovich sources. Astronomy and Astrophysics, 2014, 571, A29.	5.1	380
18	Planckintermediate results. Astronomy and Astrophysics, 2016, 596, A108.	5.1	375

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19	Planck2013 results. XXIII. Isotropy and statistics of the CMB. Astronomy and Astrophysics, 2014, 571, A23.	5.1	367
20	Planck2013 results. XV. CMB power spectra and likelihood. Astronomy and Astrophysics, 2014, 571, A15.	5.1	364
21	Planck2015 results. Astronomy and Astrophysics, 2016, 594, A15.	5.1	360
22	Planckintermediate results. Astronomy and Astrophysics, 2016, 596, A107.	5.1	359
23	Planck2013 results. XXIV. Constraints on primordial non-Gaussianity. Astronomy and Astrophysics, 2014, 571, A24.	5.1	350
24	Planck2015 results. Astronomy and Astrophysics, 2016, 594, A16.	5.1	338
25	Planckearly results. VIII. The all-sky early Sunyaev-Zeldovich cluster sample. Astronomy and Astrophysics, 2011, 536, A8.	5.1	335
26	Planckearly results. XIX. All-sky temperature and dust optical depth fromPlanckand IRAS. Constraints on the â€œdark gasâ€•in our Galaxy. Astronomy and Astrophysics, 2011, 536, A19.	5.1	314
27	Planckintermediate results. XIX. An overview of the polarized thermal emission from Galactic dust. Astronomy and Astrophysics, 2015, 576, A104.	5.1	296
28	Planck2015 results. Astronomy and Astrophysics, 2016, 594, A22.	5.1	274
29	Planck2015 results. Astronomy and Astrophysics, 2016, 594, A19.	5.1	273
30	Planck2013 results. XVII. Gravitational lensing by large-scale structure. Astronomy and Astrophysics, 2014, 571, A17.	5.1	272
31	Planckpre-launch status: ThePlanckmission. Astronomy and Astrophysics, 2010, 520, A1.	5.1	268
32	Planckearly results. VII. The Early Release Compact Source Catalogue. Astronomy and Astrophysics, 2011, 536, A7.	5.1	224
33	Planck2013 results. XXV. Searches for cosmic strings and other topological defects. Astronomy and Astrophysics, 2014, 571, A25.	5.1	223
34	Extragalactic source counts and contributions to the anisotropies of the cosmic microwave background: predictions for the Planck Surveyor mission. Monthly Notices of the Royal Astronomical Society, 1998, 297, 117-127.	4.4	218
35	Planck2013 results. XII. Diffuse component separation. Astronomy and Astrophysics, 2014, 571, A12.	5.1	216
36	Predictions for high-frequency radio surveys of extragalactic sources. Astronomy and Astrophysics, 2005, 431, 893-903.	5.1	214

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37	Planck2013 results. XXX. Cosmic infrared background measurements and implications for star formation. Astronomy and Astrophysics, 2014, 571, A30.	5.1	210
38	Planck2015 results. Astronomy and Astrophysics, 2016, 594, A8.	5.1	209
39	Planckintermediate results. Astronomy and Astrophysics, 2016, 596, A109.	5.1	185
40	Planckearly results. XXV. Thermal dust in nearby molecular clouds. Astronomy and Astrophysics, 2011, 536, A25.	5.1	184
41	Planck2015 results. Astronomy and Astrophysics, 2016, 594, A9.	5.1	182
42	Planck2015 results. Astronomy and Astrophysics, 2016, 594, A26.	5.1	182
43	Planckearly results. XVIII. The power spectrum of cosmic infrared background anisotropies. Astronomy and Astrophysics, 2011, 536, A18.	5.1	180
44	Planckearly results. XXIV. Dust in the diffuse interstellar medium and the Galactic halo. Astronomy and Astrophysics, 2011, 536, A24.	5.1	179
45	Planckearly results. XI. Calibration of the local galaxy cluster Sunyaev-Zeldovich scaling relations. Astronomy and Astrophysics, 2011, 536, A11.	5.1	174
46	Planck2013 results. XXVII. Doppler boosting of the CMB: Eppur si muove. Astronomy and Astrophysics, 2014, 571, A27.	5.1	170
47	SimultaneousPlanck,Swift, andFermiobservations of X-ray andÎ³-ray selected blazars. Astronomy and Astrophysics, 2012, 541, A160.	5.1	166
48	The pre-launchPlanckSky Model: a model of sky emission at submillimetre to centimetre wavelengths. Astronomy and Astrophysics, 2013, 553, A96.	5.1	166
49	Planck2013 results. XXVIII. ThePlanckCatalogue of Compact Sources. Astronomy and Astrophysics, 2014, 571, A28.	5.1	162
50	Planckearly results. XX. New light on anomalous microwave emission from spinning dust grains. Astronomy and Astrophysics, 2011, 536, A20.	5.1	155
51	Planck2015 results. Astronomy and Astrophysics, 2016, 594, A25.	5.1	153
52	Planckearly results. XXIII. The first all-sky survey of Galactic cold clumps. Astronomy and Astrophysics, 2011, 536, A23.	5.1	152
53	Planck2013 results. XIII. Galactic CO emission. Astronomy and Astrophysics, 2014, 571, A13.	5.1	144
54	PRISM (Polarized Radiation Imaging and Spectroscopy Mission): an extended white paper. Journal of Cosmology and Astroparticle Physics, 2014, 2014, 006-006.	5.4	138

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55	Planck intermediate results. Astronomy and Astrophysics, 2014, 566, A55.	5.1	134
56	Planck2015 results. Astronomy and Astrophysics, 2016, 594, A28.	5.1	134
57	Planck2013 results. XXI. Power spectrum and high-order statistics of thePlanckall-sky Compton parameter map. Astronomy and Astrophysics, 2014, 571, A21.	5.1	133
58	Planckintermediate results. XXII. Frequency dependence of thermalâ€‰emissionâ€‰fromâ€‰Galacticâ€‰dustâ€‰inâ€‰intensity and polarization. Astronomy and Astrophysics, 2015, 576, A107.	5.1	127
59	Planck2013 results. XIX. The integrated Sachs-Wolfe effect. Astronomy and Astrophysics, 2014, 571, A19.	5.1	126
60	Planckearly results. IX.XMM-Newtonfollow-up for validation ofPlanckcluster candidates. Astronomy and Astrophysics, 2011, 536, A9.	5.1	126
61	Planckearly results. X. Statistical analysis of Sunyaev-Zeldovich scaling relations for X-ray galaxy clusters. Astronomy and Astrophysics, 2011, 536, A10.	5.1	124
62	Planckearly results. XVII. Origin of the submillimetre excess dust emission in the Magellanic Clouds. Astronomy and Astrophysics, 2011, 536, A17.	5.1	123
63	Planckearly results. XXI. Properties of the interstellar medium in the Galactic plane. Astronomy and Astrophysics, 2011, 536, A21.	5.1	119
64	Planckintermediate results. XX. Comparison of polarized thermal emission from Galactic dust with simulations of MHD turbulence. Astronomy and Astrophysics, 2015, 576, A105.	5.1	119
65	Planck2015 results. Astronomy and Astrophysics, 2016, 594, A12.	5.1	117
66	Planck2013 results. XVIII. The gravitational lensing-infrared background correlation. Astronomy and Astrophysics, 2014, 571, A18.	5.1	116
67	Planck2015 results. Astronomy and Astrophysics, 2016, 594, A21.	5.1	114
68	Planckearly results. III. First assessment of the Low Frequency Instrument in-flight performance. Astronomy and Astrophysics, 2011, 536, A3.	5.1	108
69	Planckearly results. XIII. Statistical properties of extragalactic radio sources in thePlanckEarly Release Compact Source Catalogue. Astronomy and Astrophysics, 2011, 536, A13.	5.1	103
70	The Mexican hat wavelet family: application to point-source detection in cosmic microwave background maps. Monthly Notices of the Royal Astronomical Society, 2006, 369, 1603-1610.	4.4	102
71	Planckearly results. XII. Cluster Sunyaev-Zeldovich optical scaling relations. Astronomy and Astrophysics, 2011, 536, A12.	5.1	100
72	Planck2015 results. Astronomy and Astrophysics, 2016, 594, A7.	5.1	94

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73	Planckearly results. XV. Spectral energy distributions and radio continuum spectra of northern extragalactic radio sources. Astronomy and Astrophysics, 2011, 536, A15.	5.1	93
74	Planckearly results. II. The thermal performance ofPlanck. Astronomy and Astrophysics, 2011, 536, A2.	5.1	91
75	Planck2013 results. XXVI. Background geometry and topology of the Universe. Astronomy and Astrophysics, 2014, 571, A26.	5.1	91
76	Planck2013 results. XIV. Zodiacal emission. Astronomy and Astrophysics, 2014, 571, A14.	5.1	90
77	Planck2015 results. Astronomy and Astrophysics, 2016, 594, A23.	5.1	89
78	Planckintermediate results. Astronomy and Astrophysics, 2016, 596, A103.	5.1	89
79	Planckearly results. XXII. The submillimetre properties of a sample of Galactic cold clumps. Astronomy and Astrophysics, 2011, 536, A22.	5.1	88
80	Discrete source contributions to small-scale anisotropies of the microwave background. Astrophysical Journal, 1989, 344, 35.	4.5	84
81	High-frequency predictions for number counts and spectral properties of extragalactic radio sources. New evidence of a break at mm wavelengths in spectra of bright blazar sources. Astronomy and Astrophysics, 2011, 533, A57.	5.1	83
82	Isotropic wavelets: a powerful tool to extract point sources from cosmic microwave background maps. Monthly Notices of the Royal Astronomical Society, 2000, 315, 757-761.	4.4	82
83	Neural networks and the separation of cosmic microwave background and astrophysical signals in sky maps. Monthly Notices of the Royal Astronomical Society, 2000, 318, 769-780.	4.4	81
84	Dust and star formation properties of a complete sample of local galaxies drawn from the Planck Early Release Compact Source Catalogue. Monthly Notices of the Royal Astronomical Society, 2013, 433, 695-711.	4.4	81
85	Planck2013 results. XXXII. The updatedPlanckcatalogue of Sunyaev-Zeldovich sources. Astronomy and Astrophysics, 2015, 581, A14.	5.1	80
86	Planck2015 results. Astronomy and Astrophysics, 2016, 594, A2.	5.1	79
87	Planckearly results. V. The Low Frequency Instrument data processing. Astronomy and Astrophysics, 2011, 536, A5.	5.1	77
88	Predictions on the high-frequency polarization properties of extragalactic radio sources and implications for polarization measurements of the cosmic microwave background. Monthly Notices of the Royal Astronomical Society, 2004, 349, 1267-1277.	4.4	74
89	Planckearly results. XVI. ThePlanckview of nearby galaxies. Astronomy and Astrophysics, 2011, 536, A16.	5.1	74
90	Planck2013 results. II. Low Frequency Instrument data processing. Astronomy and Astrophysics, 2014, 571, A2.	5.1	74

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91	Planckearly results. XXVI. Detection withPlanckand confirmation byXMM-Newtonof PLCKÂG266.6â€“27.3, an exceptionally X-ray luminous and massive galaxy cluster atzÂ–Â 1. Astronomy and Astrophysics, 2011, 536, A26.	5.1	72
92	Planck2013 results. XXXI. Consistency of thePlanckdata. Astronomy and Astrophysics, 2014, 571, A31.	5.1	69
93	Planck2015 results. Astronomy and Astrophysics, 2016, 594, A18.	5.1	69
94	Point source detection using the Spherical Mexican Hat Wavelet on simulated all-skyPlanckmaps. Monthly Notices of the Royal Astronomical Society, 2003, 344, 89-104.	4.4	68
95	Planck2013 results. X. HFI energetic particle effects: characterization, removal, and simulation. Astronomy and Astrophysics, 2014, 571, A10.	5.1	68
96	Planckintermediate results. XXI. Comparison of polarized thermal emission from Galactic dust at 353 GHz with interstellar polarization in the visible. Astronomy and Astrophysics, 2015, 576, A106.	5.1	68
97	Planck2013 results. V. LFI calibration. Astronomy and Astrophysics, 2014, 571, A5.	5.1	67
98	Planckintermediate results. XV. A study of anomalous microwave emission in Galactic clouds. Astronomy and Astrophysics, 2014, 565, A103.	5.1	67
99	Planckintermediate results. Astronomy and Astrophysics, 2016, 596, A110.	5.1	64
100	Comparison of filters for the detection of point sources in Planck simulations. Monthly Notices of the Royal Astronomical Society, 2006, 370, 2047-2063.	4.4	63
101	Predictions of the Angular Power Spectrum of Clustered Extragalactic Point Sources at Cosmic Microwave Background Frequencies from Flat and Allâ€Sky Twoâ€dimensional Simulations. Astrophysical Journal, 2005, 621, 1-14.	4.5	62
102	Planck2015 results. Astronomy and Astrophysics, 2016, 594, A6.	5.1	62
103	Planckearly results. XIV. ERCSC validation and extreme radio sources. Astronomy and Astrophysics, 2011, 536, A14.	5.1	61
104	Predicted Planck extragalactic point-source catalogue. Monthly Notices of the Royal Astronomical Society, 2001, 326, 181-191.	4.4	58
105	Nonblind Catalog of Extragalactic Point Sources from the Wilkinson Microwave Anisotropy Probe () Tj ETQq1 1 0.784314 rgBT /Overlo	7.7	58
106	Planck2015 results. Astronomy and Astrophysics, 2016, 594, A4.	5.1	56
107	Planckintermediate results. XIV. Dust emission at millimetre wavelengths in the Galactic plane. Astronomy and Astrophysics, 2014, 564, A45.	5.1	55
108	Planck2015 results. Astronomy and Astrophysics, 2016, 594, A5.	5.1	55

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109	Planck2013 results. III. LFI systematic uncertainties. Astronomy and Astrophysics, 2014, 571, A3.	5.1	54
110	Planck2015 results. Astronomy and Astrophysics, 2016, 594, A3.	5.1	53
111	Combining maximum-entropy and the Mexican hat wavelet to reconstruct the microwave sky. Monthly Notices of the Royal Astronomical Society, 2001, 328, 1-16.	4.4	52
112	Interpretation of deep counts of radio sources. Astrophysical Journal, 1987, 318, L15.	4.5	48
113	Planckintermediate results. Astronomy and Astrophysics, 2016, 596, A105.	5.1	47
114	Planckintermediate results. XXVI. Optical identification and redshifts ofPlanckclusters with the RTT150 telescope. Astronomy and Astrophysics, 2015, 582, A29.	5.1	46
115	The effect of point sources on satellite observations of the cosmic microwave background. Monthly Notices of the Royal Astronomical Society, 1999, 306, 232-246.	4.4	44
116	Planck2013 results. IV. Low Frequency Instrument beams and window functions. Astronomy and Astrophysics, 2014, 571, A4.	5.1	41
117	Wavelets applied to cosmic microwave background maps: a multiresolution analysis for denoising. Monthly Notices of the Royal Astronomical Society, 1999, 309, 672-680.	4.4	36
118	Effect of clustering on extragalactic source counts with low-resolution instruments. Monthly Notices of the Royal Astronomical Society, 2005, 358, 869-874.	4.4	36
119	Planckintermediate results. Astronomy and Astrophysics, 2016, 596, A104.	5.1	36
120	Contributions of Point Extragalactic Sources to the Cosmic Microwave Background Bispectrum. Astrophysical Journal, 2003, 598, 86-96.	4.5	35
121	The Impact of Polarized Extragalactic Radio Sources on the Detection of CMB Anisotropies in Polarization. Advances in Astronomy, 2012, 2012, 1-17.	1.1	34
122	The local luminosity function of star-forming galaxies derived from the Planck Early Release Compact Source Catalogue. Monthly Notices of the Royal Astronomical Society, 2013, 429, 1309-1323.	4.4	33
123	Statistical properties of extragalactic sources in the New Extragalactic WMAP Point Source (NEWPS) catalogue. Monthly Notices of the Royal Astronomical Society, 0, 384, 711-718.	4.4	30
124	Extragalactic source contributions to arcminute-scale Cosmic Microwave Background anisotropies. Astronomy and Astrophysics, 2005, 438, 475-480.	5.1	29
125	An Î±-stableÂapproach to the study of the P(D) distribution of unresolved point sources in CMB sky maps. Astronomy and Astrophysics, 2004, 424, 1081-1096.	5.1	27
126	Statistics of the fractional polarization of compact radio sources in Planck maps. Monthly Notices of the Royal Astronomical Society, 2017, 469, 2401-2411.	4.4	24

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127	Planckintermediate results. Astronomy and Astrophysics, 2016, 596, A106.	5.1	23
128	The Planck Surveyor mission: astrophysical prospects. , 1999, , .		22
129	PlanckÂintermediate results. XII: Diffuse Galactic components in the Gould Belt system. Astronomy and Astrophysics, 2013, 557, A53.	5.1	19
130	Forecasts on the contamination induced by unresolved point sources in primordial non-Gaussianity beyond Planck. Monthly Notices of the Royal Astronomical Society, 2013, 432, 728-742.	4.4	16
131	Multifrequency polarimetry of a complete sample of PACO radio sources. Monthly Notices of the Royal Astronomical Society, 2017, 465, 4085-4098.	4.4	16
132	Constraints on the cosmic star formation history from the far-infrared background. Monthly Notices of the Royal Astronomical Society, 1997, 287, L17-L20.	4.4	15
133	Planckintermediate results. XVIII. The millimetre and sub-millimetre emission from planetary nebulae. Astronomy and Astrophysics, 2015, 573, A6.	5.1	13
134	Extragalactic sources in Cosmic Microwave Background maps. Journal of Cosmology and Astroparticle Physics, 2015, 2015, 018-018.	5.4	13
135	Statistics of the fractional polarization of extragalactic dusty sources in Planck HFI maps. Monthly Notices of the Royal Astronomical Society, 2017, 472, 628-635.	4.4	13
136	Characterization of polarimetric and total intensity behaviour of a complete sample of PACO radio sources in the radio bands. Monthly Notices of the Royal Astronomical Society, 2018, 475, 1306-1322.	4.4	13
137	Analysis of CMB maps with 2D wavelets. Astronomy and Astrophysics, 1999, 140, 99-105.	2.1	13
138	The subdegree angular structure of the X-ray sky as seen by the Ginga satellite. Monthly Notices of the Royal Astronomical Society, 1993, 260, 376-384.	4.4	10
139	Analysis of a complete sample of galaxies at Formula: the optical, radio and far-infrared luminosity functions. Monthly Notices of the Royal Astronomical Society, 1988, 233, 157-174.	4.4	7
140	Predictions on the polarization of extragalactic radio sources at microwave frequencies. New Astronomy Reviews, 2003, 47, 1135-1141.	12.8	6
141	RECENT DEVELOPMENTS IN ASTROPHYSICAL AND COSMOLOGICAL EXPLOITATION OF MICROWAVE SURVEYS. International Journal of Modern Physics D, 2013, 22, 1330011.	2.1	6
142	SURVEYS OF EXTRAGALACTIC SOURCES WITH PLANCK. , 2006, , 45-54.		3
143	The extragalactic infrared background. Planetary and Space Science, 1995, 43, 1439-1447.	1.7	2
144	Angular correlations of the X-ray background and clustering of extragalactic X-ray sources. Astrophysical Journal, 1993, 412, 56.	4.5	2

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145	Theoretical implications of the CMB spectral distortions. Astrophysics and Space Science Library, 1990, , 153-172.	2.7	2
146	Reconstructing the Microwave Sky Using a Combined Maximum-Entropy and Mexican Hat Wavelet Analysis. , 0, , 465-472.		1
147	Extragalactic Compact Sources in the Planck Sky and Their Cosmological Implications. , 0, , .		1
148	Clustering Properties of AGNs and their Contribution to the X-ray Background. , 1994, , 129-130.		0
149	Is elegance enough?. Astronomy and Geophysics, 2015, 56, 5.9-5.10.	0.2	0
150	STATISTICAL PROPERTIES OF RADIO AND FAR INFRARED EXTRAGALACTIC SOURCES AT MM/SUB-MM WAVELENGTHS. , 2015, , .		0
151	RECENT DEVELOPMENTS IN ASTROPHYSICAL AND COSMOLOGICAL EXPLOITATION OF MICROWAVE SURVEYS. , 2015, , .		0