

# Sownak Bose

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

81 papers	23,216 citations	41 h-index	86 g-index
86 ext. papers	28,620 ext. citations	6.4 avg, IF	5.37 L-index

#	Paper	IF	Citations
81	Dynamics of intermediate-mass black holes wandering in the milky way galaxy using the illustris TNG50 simulation. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>2022</b> , 511, 2229-2238	4.3	2
80	Constructing high-fidelity halo merger trees in abacussummit. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>2022</b> , 512, 837-854	4.3	0
79	A Gravitational-wave Measurement of the Hubble Constant Following the Second Observing Run of Advanced LIGO and Virgo. <i>Astrophysical Journal</i> , <b>2021</b> , 909, 218	4.7	46
78	Measuring the Mass and Concentration of Dark Matter Halos from the Velocity Dispersion Profile of their Stars. <i>Astrophysical Journal</i> , <b>2021</b> , 912, 114	4.7	2
77	Morphological Types of DM Halos in Milky Way-like Galaxies in the TNG50 Simulation: Simple, Twisted, or Stretched. <i>Astrophysical Journal</i> , <b>2021</b> , 913, 36	4.7	3
76	Constraints on Cosmic Strings Using Data from the Third Advanced LIGO-Virgo Observing Run. <i>Physical Review Letters</i> , <b>2021</b> , 126, 241102	7.4	21
75	Evidence for galaxy assembly bias in BOSS CMASS redshift-space galaxy correlation function. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>2021</b> , 502, 3582-3598	4.3	16
74	The galaxy halo connection of emission-line galaxies in IllustrisTNG. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>2021</b> , 502, 3599-3617	4.3	13
73	Degeneracies between baryons and dark matter: the challenge of constraining the nature of dark matter with JWST. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>2021</b> , 506, 4139-4150	4.3	3
72	Inferring the Morphology of Stellar Distribution in TNG50: Twisted and Twisted-stretched Shapes. <i>Astrophysical Journal</i> , <b>2021</b> , 918, 7	4.7	0
71	Galaxy assembly bias and large-scale distribution: a comparison between IllustrisTNG and a semi-analytic model. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>2021</b> , 508, 698-718	4.3	7
70	The little things matter: relating the abundance of ultrafaint satellites to the hosts assembly history. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>2020</b> , 495, 743-757	4.3	16
69	Galaxy formation with BECDM III. Cosmic filaments and first galaxies. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>2020</b> , 494, 2027-2044	4.3	22
68	Rapid Reionization by the Oligarchs: The Case for Massive, UV-bright, Star-forming Galaxies with High Escape Fractions. <i>Astrophysical Journal</i> , <b>2020</b> , 892, 109	4.7	77
67	The BUFFALO HST Survey. <i>Astrophysical Journal, Supplement Series</i> , <b>2020</b> , 247, 64	8	21
66	The accuracy of weak lensing simulations. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>2020</b> , 493, 305-319	4.3	13
65	Extensions to models of the galaxy halo connection. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>2020</b> , 501, 1603-1620	4.3	15

64	Prospects for observing and localizing gravitational-wave transients with Advanced LIGO, Advanced Virgo and KAGRA. <i>Living Reviews in Relativity</i> , <b>2020</b> , 23, 3	32.5	144
63	Limitations to the $\Lambda$ CDM model and beyond. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>2020</b> , 493, 5506-5519	4.3	32
62	Universal structure of dark matter haloes over a mass range of 20 orders of magnitude. <i>Nature</i> , <b>2020</b> , 585, 39-42	50.4	58
61	GW190521: A Binary Black Hole Merger with a Total Mass of $150 M_{\odot}$ . <i>Physical Review Letters</i> , <b>2020</b> , 125, 101102	7.4	420
60	No cores in dark matter-dominated dwarf galaxies with bursty star formation histories. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>2019</b> , 486, 4790-4804	4.3	43
59	The signal of decaying dark matter with hydrodynamical simulations. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>2019</b> , 485, 4071-4089	4.3	7
58	ETHOS: An Effective Theory of Structure Formation: detecting dark matter interactions through the Lyman- $\alpha$ Forest. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>2019</b> , 487, 522-536	4.3	15
57	Simulating the Dark Matter Decay Signal from the Perseus Galaxy Cluster. <i>Astrophysical Journal Letters</i> , <b>2019</b> , 875, L24	7.9	0
56	The Santiago-Harvard-Edinburgh-Durham void comparison II: unveiling the Vainshtein screening using weak lensing. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>2019</b> , 484, 1149-1165	4.3	24
55	On the road to 1 percent accuracy: non-linear reaction of the matter power spectrum to dark energy and modified gravity. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>2019</b> , 488, 2121-2142	4.3	41
54	Tests of General Relativity with GW170817. <i>Physical Review Letters</i> , <b>2019</b> , 123, 011102	7.4	204
53	Revealing the galaxy-halo connection in IllustrisTNG. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>2019</b> , 490, 5693-5711	4.3	27
52	Search for Substellar Mass Ultracompact Binaries in Advanced LIGO's Second Observing Run. <i>Physical Review Letters</i> , <b>2019</b> , 123, 161102	7.4	68
51	First Star-Forming Structures in Fuzzy Cosmic Filaments. <i>Physical Review Letters</i> , <b>2019</b> , 123, 141301	7.4	50
50	Constraining the p-Mode-g-Mode Tidal Instability with GW170817. <i>Physical Review Letters</i> , <b>2019</b> , 122, 061104	7.4	22
49	GW170817: Implications for the Stochastic Gravitational-Wave Background from Compact Binary Coalescences. <i>Physical Review Letters</i> , <b>2018</b> , 120, 091101	7.4	120
48	First Search for Nontensorial Gravitational Waves from Known Pulsars. <i>Physical Review Letters</i> , <b>2018</b> , 120, 031104	7.4	50
47	The Imprint of Cosmic Reionization on the Luminosity Function of Galaxies. <i>Astrophysical Journal</i> , <b>2018</b> , 863, 123	4.7	33

46	Reionisation in Sterile Neutrino Cosmologies. <i>Springer Theses</i> , <b>2018</b> , 77-100	O.1	
45	Substructure and Galaxy Formation in Warm Dark Matter Simulations. <i>Springer Theses</i> , <b>2018</b> , 51-75	O.1	
44	Statistical Properties of Warm Dark Matter Haloes. <i>Springer Theses</i> , <b>2018</b> , 15-50	O.1	
43	Speeding up N-Body Simulations of Modified Gravity: Chameleon Screening Models. <i>Springer Theses</i> , <b>2018</b> , 139-159	O.1	
42	Prospects for observing and localizing gravitational-wave transients with Advanced LIGO, Advanced Virgo and KAGRA <b>2018</b> , 21, 1		2
41	Search for Substellar-Mass Ultracompact Binaries in Advanced LIGO's First Observing Run. <i>Physical Review Letters</i> , <b>2018</b> , 121, 231103	7.4	49
40	The SantiagoHarvardEdinburghDurham void comparison II. SHEDding light on chameleon gravity tests. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>2018</b> , 476, 3195-3217	4.3	53
39	A Redshift-independent Efficiency Model: Star Formation and Stellar Masses in Dark Matter Halos at $z \approx 4$ . <i>Astrophysical Journal</i> , <b>2018</b> , 868, 92	4.7	88
38	GW170817: Measurements of Neutron Star Radii and Equation of State. <i>Physical Review Letters</i> , <b>2018</b> , 121, 161101	7.4	867
37	Search for Tensor, Vector, and Scalar Polarizations in the Stochastic Gravitational-Wave Background. <i>Physical Review Letters</i> , <b>2018</b> , 120, 201102	7.4	60
36	Dating the Tidal Disruption of Globular Clusters with GAIA Data on Their Stellar Streams. <i>Astrophysical Journal Letters</i> , <b>2018</b> , 859, L13	7.9	5
35	Weak lensing by galaxy troughs with modified gravity. <i>Journal of Cosmology and Astroparticle Physics</i> , <b>2017</b> , 2017, 031-031	6.4	20
34	Speeding upN-body simulations of modified gravity: chameleon screening models. <i>Journal of Cosmology and Astroparticle Physics</i> , <b>2017</b> , 2017, 050-050	6.4	25
33	Upper Limits on the Stochastic Gravitational-Wave Background from Advanced LIGO's First Observing Run. <i>Physical Review Letters</i> , <b>2017</b> , 118, 121101	7.4	137
32	Directional Limits on Persistent Gravitational Waves from Advanced LIGO's First Observing Run. <i>Physical Review Letters</i> , <b>2017</b> , 118, 121102	7.4	65
31	Substructure and galaxy formation in the Copernicus Complexio warm dark matter simulations. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>2017</b> , 464, 4520-4533	4.3	62
30	GW170814: A Three-Detector Observation of Gravitational Waves from a Binary Black Hole Coalescence. <i>Physical Review Letters</i> , <b>2017</b> , 119, 141101	7.4	1270
29	GW170817: Observation of Gravitational Waves from a Binary Neutron Star Inspiral. <i>Physical Review Letters</i> , <b>2017</b> , 119, 161101	7.4	4272

28	Gravitational Waves and Gamma-Rays from a Binary Neutron Star Merger: GW170817 and GRB 170817A. <i>Astrophysical Journal Letters</i> , <b>2017</b> , 848, L13	7.9	1614
27	Addressing the too big to fail problem with baryon physics and sterile neutrino dark matter. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>2017</b> , 468, 2836-2849	4.3	34
26	Search for Gravitational Waves Associated with Gamma-Ray Bursts during the First Advanced LIGO Observing Run and Implications for the Origin of GRB 150906B. <i>Astrophysical Journal</i> , <b>2017</b> , 841, 89	4.7	42
25	GW170104: Observation of a 50-Solar-Mass Binary Black Hole Coalescence at Redshift 0.2. <i>Physical Review Letters</i> , <b>2017</b> , 118, 221101	7.4	1609
24	Properties of Local Group galaxies in hydrodynamical simulations of sterile neutrino dark matter cosmologies. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>2017</b> , 468, 4285-4298	4.3	44
23	GW150914: Implications for the Stochastic Gravitational-Wave Background from Binary Black Holes. <i>Physical Review Letters</i> , <b>2016</b> , 116, 131102	7.4	188
22	GW150914: The Advanced LIGO Detectors in the Era of First Discoveries. <i>Physical Review Letters</i> , <b>2016</b> , 116, 131103	7.4	328
21	Tests of General Relativity with GW150914. <i>Physical Review Letters</i> , <b>2016</b> , 116, 221101	7.4	837
20	Properties of the Binary Black Hole Merger GW150914. <i>Physical Review Letters</i> , <b>2016</b> , 116, 241102	7.4	515
19	GW151226: Observation of Gravitational Waves from a 22-Solar-Mass Binary Black Hole Coalescence. <i>Physical Review Letters</i> , <b>2016</b> , 116, 241103	7.4	2136
18	Satellite galaxies in semi-analytic models of galaxy formation with sterile neutrino dark matter. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>2016</b> , 461, 60-72	4.3	61
17	The mass-concentration-redshift relation of cold and warm dark matter haloes. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>2016</b> , 460, 1214-1232	4.3	153
16	Observation of Gravitational Waves from a Binary Black Hole Merger. <i>Physical Review Letters</i> , <b>2016</b> , 116, 061102	7.4	6108
15	The Copernicus Complexio: a high-resolution view of the small-scale Universe. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>2016</b> , 457, 3492-3509	4.3	65
14	The Copernicus Complexio: statistical properties of warm dark matter haloes. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>2016</b> , 455, 318-333	4.3	79
13	The extraordinary amount of substructure in the Hubble Frontier Fields cluster Abell 2744. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>2016</b> , 463, 3876-3893	4.3	69
12	Constraining SN feedback: a tug of war between reionization and the Milky Way satellites. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>2016</b> , 463, 1224-1239	4.3	8
11	Reionization in sterile neutrino cosmologies. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>2016</b> , 463, 3848-3859	4.3	27

10	RAY-RAMSES: a code for ray tracing on the fly in N-body simulations. <i>Journal of Cosmology and Astroparticle Physics</i> , <b>2016</b> , 2016, 001-001	6.4	16
9	Prospects for Observing and Localizing Gravitational-Wave Transients with Advanced LIGO and Advanced Virgo. <i>Living Reviews in Relativity</i> , <b>2016</b> , 19, 1	32.5	393
8	Constraints on the identity of the dark matter from strong gravitational lenses. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>2016</b> , 460, 363-372	4.3	44
7	Testing the quasi-static approximation in $f(R)$ gravity simulations. <i>Journal of Cosmology and Astroparticle Physics</i> , <b>2015</b> , 2015, 034-034	6.4	43
6	Modified gravity N-body code comparison project. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>2015</b> , 454, 4208-4234	4.3	83
5	Planes of satellite galaxies: when exceptions are the rule. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>2015</b> , 452, 3838-3852	4.3	62
4	Speeding up N-body simulations of modified gravity: Vainshtein screening models. <i>Journal of Cosmology and Astroparticle Physics</i> , <b>2015</b> , 2015, 059-059	6.4	24
3	AbacusHOD: A highly efficient extended multi-tracer HOD framework and its application to BOSS and eBOSS data. <i>Monthly Notices of the Royal Astronomical Society</i> ,	4.3	1
2	compaso: A new halo finder for competitive assignment to spherical overdensities. <i>Monthly Notices of the Royal Astronomical Society</i> ,	4.3	3
1	AbacusSummit: A Massive Set of High-Accuracy, High-Resolution N-Body Simulations. <i>Monthly Notices of the Royal Astronomical Society</i> ,	4.3	14