Oliver Hahn

List of Publications by Year in Descending Order

61 papers	3,947 citations	29 h-index	62 g-index
63 ext. papers	4,481 ext. citations	4.7 avg, IF	5.78 L-index

#	Paper	IF	Citations
61	Large-scale dark matter simulations. *Living Reviews in Solar Physics*, **2022**, 8, 1	12.2	3
60	Non-halo structures and their effects on gravitational lensing. *Monthly Notices of the Royal Astronomical Society*, **2022**, 511, 6019-6032	4.3	1
59	Cosmological perturbations for two cold fluids in ΛCDM. *Monthly Notices of the Royal Astronomical Society*, **2021**, 503, 406-425	4.3	8
58	Higher order initial conditions for mixed baryon–ΛCDM simulations. *Monthly Notices of the Royal Astronomical Society*, **2021**, 503, 426-445	4.3	6
57	Shell-crossing in a ΛCDM Universe. *Monthly Notices of the Royal Astronomical Society: Letters*, **2021**, 501, L71-L75	4.3	5
56	Quantifying the impact of baryon-CDM perturbations on halo clustering and baryon fraction. *Journal of Cosmology and Astroparticle Physics*, **2021**, 2021, 023	6.4	5
55	Unveiling the singular dynamics in the cosmic large-scale structure. *Monthly Notices of the Royal Astronomical Society: Letters*, **2021**, 505, L90-L94	4.3	3
54	Measuring the tidal response of structure formation: anisotropic separate universe simulations using treepm. *Monthly Notices of the Royal Astronomical Society*, **2021**, 503, 1473-1489	4.3	7
53	The AGORA High-resolution Galaxy Simulations Comparison Project. III. Cosmological Zoom-in Simulation of a Milky Way–mass Halo. *Astrophysical Journal*, **2021**, 917, 64	4.7	4
52	Accelerated orbital decay of supermassive black hole binaries in merging nuclear star clusters. *Monthly Notices of the Royal Astronomical Society*, **2020**, 493, 3676-3689	4.3	14
51	A hierarchical field-level inference approach to reconstruction from sparse Lyman-α forest data. *Astronomy and Astrophysics*, **2020**, 642, A139	5.1	10
50	Fast simulations of cosmic large-scale structure with massive neutrinos. *Journal of Cosmology and Astroparticle Physics*, **2020**, 2020, 018-018	6.4	7
49	Accurate initial conditions for cosmological N-body simulations: minimizing truncation and discreteness errors. *Monthly Notices of the Royal Astronomical Society*, **2020**, 500, 663-683	4.3	16
48	Simulating the complexity of the dark matter sheet I: numerical algorithms. *Monthly Notices of the Royal Astronomical Society*, **2020**, 495, 4943-4964	4.3	10
47	Cosmic web anisotropy is the primary indicator of halo assembly bias. *Monthly Notices of the Royal Astronomical Society*, **2019**, 489, 2977-2996	4.3	34
46	Large-scale velocity dispersion and the cosmic web. *Monthly Notices of the Royal Astronomical Society*, **2019**, 487, 228-245	4.3	15
45	Semiclassical path to cosmic large-scale structure. *Physical Review D*, **2019**, 99,	4.9	12

44	ENZO: An Adaptive Mesh Refinement Code for Astrophysics (Version 2.6). *Journal of Open Source Software*, **2019**, 4, 1636	5.2	25
43	DASH: a library of dynamical subhalo evolution. *Monthly Notices of the Royal Astronomical Society*, **2019**, 485, 189-202	4.3	18
42	Disruption of dark matter substructure: fact or fiction?. *Monthly Notices of the Royal Astronomical Society*, **2018**, 474, 3043-3066	4.3	142
41	What sets the central structure of dark matter haloes?. *Monthly Notices of the Royal Astronomical Society*, **2018**, 473, 4339-4359	4.3	16
40	Tracing the cosmic web. *Monthly Notices of the Royal Astronomical Society*, **2018**, 473, 1195-1217	4.3	132
39	The dependence of galaxy clustering on tidal environment in the Sloan Digital Sky Survey. *Monthly Notices of the Royal Astronomical Society*, **2018**, 476, 5442-5452	4.3	21
38	Halo assembly bias and the tidal anisotropy of the local halo environment. *Monthly Notices of the Royal Astronomical Society*, **2018**, 476, 3631-3647	4.3	49
37	Substructure and merger detection in resolved NIKA Sunyaev-Zel□ovich images of distant clusters. *Astronomy and Astrophysics*, **2018**, 614, A118	5.1	11
36	Two is better than one: joint statistics of density and velocity in concentric spheres as a cosmological probe. *Monthly Notices of the Royal Astronomical Society*, **2017**, 469, 2481-2497	4.3	5
35	Earth-mass haloes and the emergence of NFW density profiles. *Monthly Notices of the Royal Astronomical Society*, **2017**, 471, 4687-4701	4.3	33
34	Rhapsody-G simulations □I. Baryonic growth and metal enrichment in massive galaxy clusters. *Monthly Notices of the Royal Astronomical Society*, **2016**, 459, 4408-4427	4.3	20
33	An adaptively refined phase□pace element method for cosmological simulations and collisionless dynamics. *Monthly Notices of the Royal Astronomical Society*, **2016**, 455, 1115-1133	4.3	56
32	General relativistic screening in cosmological simulations. *Physical Review D*, **2016**, 94,	4.9	16
31	Rhapsody-G simulations: galaxy clusters as baryonic closed boxes and the covariance between hot gas and galaxies. *Monthly Notices of the Royal Astronomical Society*, **2015**, 452, 1982-1991	4.3	22
30	The properties of cosmic velocity fields. *Monthly Notices of the Royal Astronomical Society*, **2015**, 454, 3920-3937	4.3	59
29	Four phases of angular-momentum buildup in high-z galaxies: from cosmic-web streams through an extended ring to disc and bulge. *Monthly Notices of the Royal Astronomical Society*, **2015**, 449, 2087-2111	4.3	174
28	Collisionless Dynamics and the Cosmic Web. *Proceedings of the International Astronomical Union*, **2014**, 11, 87-96	0.1	
27	The locations of halo formation and the peaks formalism. *Monthly Notices of the Royal Astronomical Society*, **2014**, 438, 878-899	4.3	17

26	How to zoom: bias, contamination and Lagrange volumes in multimass cosmological simulations. *Monthly Notices of the Royal Astronomical Society*, **2014**, 437, 1894-1908	4.3	88
25	ENZO: AN ADAPTIVE MESH REFINEMENT CODE FOR ASTROPHYSICS. *Astrophysical Journal, Supplement Series*, **2014**, 211, 19	8	490
24	THE AGORA HIGH-RESOLUTION GALAXY SIMULATIONS COMPARISON PROJECT. *Astrophysical Journal, Supplement Series*, **2014**, 210, 14	8	159
23	MERGERS AND MASS ACCRETION FOR INFALLING HALOS BOTH END WELL OUTSIDE CLUSTER VIRIAL RADII. *Astrophysical Journal*, **2014**, 787, 156	4.7	78
22	POPULATION III STAR FORMATION IN LARGE COSMOLOGICAL VOLUMES. I. HALO TEMPORAL AND PHYSICAL ENVIRONMENT. *Astrophysical Journal*, **2013**, 773, 108	4.7	23
21	Virial scaling of galaxies in clusters: bright to faint is cool to hot. *Monthly Notices of the Royal Astronomical Society*, **2013**, 436, 460-469	4.3	39
20	A new approach to simulating collisionless dark matter fluids. *Monthly Notices of the Royal Astronomical Society*, **2013**, 434, 1171-1191	4.3	69
19	The warm dark matter halo mass function below the cut-off scale. *Monthly Notices of the Royal Astronomical Society*, **2013**, 434, 3337-3347	4.3	113
18	RHAPSODY. II. SUBHALO PROPERTIES AND THE IMPACT OF TIDAL STRIPPING FROM A STATISTICAL SAMPLE OF CLUSTER-SIZE HALOS. *Astrophysical Journal*, **2013**, 767, 23	4.7	34
17	How closely do baryons follow dark matter on large scales?. *Monthly Notices of the Royal Astronomical Society*, **2013**, 434, 1756-1764	4.3	36
16	RHAPSODY. I. STRUCTURAL PROPERTIES AND FORMATION HISTORY FROM A STATISTICAL SAMPLE OF RE-SIMULATED CLUSTER-SIZE HALOS. *Astrophysical Journal*, **2013**, 763, 70	4.7	41
15	HALO-TO-HALO SIMILARITY AND SCATTER IN THE VELOCITY DISTRIBUTION OF DARK MATTER. *Astrophysical Journal*, **2013**, 764, 35	4.7	78
14	Coplanar streams, pancakes and angular-momentum exchange in high-z disc galaxies. *Monthly Notices of the Royal Astronomical Society*, **2012**, 422, 1732-1749	4.3	96
13	A Novel Approach to Visualizing Dark Matter Simulations. *IEEE Transactions on Visualization and Computer Graphics*, **2012**, 18, 2078-87	4	21
12	Tracing the dark matter sheet in phase space. *Monthly Notices of the Royal Astronomical Society*, **2012**, 427, 61-76	4.3	109
11	Multi-scale initial conditions for cosmological simulations. *Monthly Notices of the Royal Astronomical Society*, **2011**, 415, 2101-2121	4.3	450
10	Halo mass function and scale-dependent bias from N-body simulations with non-Gaussian initial conditions. *Monthly Notices of the Royal Astronomical Society*, **2010**, 402, 191-206	4.3	127
9	The large-scale orientations of disc galaxies. *Monthly Notices of the Royal Astronomical Society*, **2010**, no-no	4.3	44

8	THE BUILDUP OF THE HUBBLE SEQUENCE IN THE COSMOS FIELD. *Astrophysical Journal Letters*, **2010**, 714, L47-L51	7.9	68
7	THE ANISOTROPIC TWO-POINT CORRELATION FUNCTIONS OF THE NONLINEAR TRACELESS TIDAL FIELD IN THE PRINCIPAL-AXIS FRAME. *Astrophysical Journal*, **2009**, 705, 1469-1472	4.7	9
6	Tidal effects and the environment dependence of halo assembly. *Monthly Notices of the Royal Astronomical Society*, **2009**, 398, 1742-1756	4.3	115
5	LAGRANGIAN STATISTICS OF DARK HALOS IN A ΛCDM COSMOLOGY. *Astrophysical Journal*, **2009**, 707, 761-767	4.7	8
4	The Aspen–Amsterdam void finder comparison project. *Monthly Notices of the Royal Astronomical Society*, **2008**, 387, 933-944	4.3	143
3	Properties of dark matter haloes in clusters, filaments, sheets and voids. *Monthly Notices of the Royal Astronomical Society*, **2007**, 375, 489-499	4.3	329
2	The evolution of dark matter halo properties in clusters, filaments, sheets and voids. *Monthly Notices of the Royal Astronomical Society*, **2007**, 381, 41-51	4.3	199
1	Simulating the complexity of the dark matter sheet – II. Halo and subhalo mass functions for non-cold dark matter models. *Monthly Notices of the Royal Astronomical Society*,	4.3	3