# Oliver Hahn

List of Publications by Year
in descending order



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|---|---|---|---|
| 63 papers | 5,060 citations | 136940 32 h-index | 128286 60 g-index |
| 63 all docs | 63 docs citations | 63 times ranked | 3481 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | ENZO: AN ADAPTIVE MESH REFINEMENT CODE FOR ASTROPHYSICS. Astrophysical Journal, Supplement Series, 2014, 211, 19. | 7.7 | 615 |
| 2 | Multi-scale initial conditions for cosmological simulations. Monthly Notices of the Royal Astronomical Society, 2011, 415, 2101-2121. | 4.4 | 591 |
| 3 | Properties of dark matter haloes in clusters, filaments, sheets and voids. Monthly Notices of the Royal Astronomical Society, 2007, 375, 489-499. | 4.4 | 387 |
| 4 | The evolution of dark matter halo properties in clusters, filaments, sheets and voids. Monthly Notices of the Royal Astronomical Society, 2007, 381, 41-51. | 4.4 | 235 |
| 5 | 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. | 4.4 | 221 |
| 6 | Disruption of dark matter substructure: fact or fiction?. Monthly Notices of the Royal Astronomical Society, 2018, 474, 3043-3066. | 4.4 | 213 |
| 7 | Tracing the cosmic web. Monthly Notices of the Royal Astronomical Society, 2018, 473, 1195-1217. | 4.4 | 187 |
| 8 | THE AGORA HIGH-RESOLUTION GALAXY SIMULATIONS COMPARISON PROJECT. Astrophysical Journal, Supplement Series, 2014, 210, 14. | 7.7 | 185 |
| 9 | The Aspenâ€“Amsterdam void finder comparison project. Monthly Notices of the Royal Astronomical Society, 2008, 387, 933-944. | 4.4 | 162 |
| 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. | 4.4 | 145 |
| 11 | The warm dark matter halo mass function below the cut-off scale. Monthly Notices of the Royal Astronomical Society, 2013, 434, 3337-3347. | 4.4 | 134 |
| 12 | Tracing the dark matter sheet in phase space. Monthly Notices of the Royal Astronomical Society, 2012, 427, 61-76. | 4.4 | 132 |
| 13 | Tidal effects and the environment dependence of halo assembly. Monthly Notices of the Royal Astronomical Society, 2009, 398, 1742-1756. | 4.4 | 124 |
| 14 | Coplanar streams, pancakes and angular-momentum exchange in high-z disc galaxies. Monthly Notices of the Royal Astronomical Society, 2012, 422, 1732-1749. | 4.4 | 108 |
| 15 | How to zoom: bias, contamination and Lagrange volumes in multimass cosmological simulations. Monthly Notices of the Royal Astronomical Society, 2014, 437, 1894-1908. | 4.4 | 105 |
| 16 | MERGERS AND MASS ACCRETION FOR INFALLING HALOS BOTH END WELL OUTSIDE CLUSTER VIRIAL RADII. Astrophysical Journal, 2014, 787, 156. | 4.5 | 101 |
| 17 | HALO-TO-HALO SIMILARITY AND SCATTER IN THE VELOCITY DISTRIBUTION OF DARK MATTER. Astrophysical Journal, 2013, 764, 35. | 4.5 | 90 |
| 18 | The properties of cosmic velocity fields. Monthly Notices of the Royal Astronomical Society, 2015, 454, 3920-3937. | 4.4 | 79 |

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|---|---|---|---|
| 19 | A new approach to simulating collisionless dark matter fluids. Monthly Notices of the Royal Astronomical Society, 2013, 434, 1171-1191. | 4.4 | 78 |
| 20 | Halo assembly bias and the tidal anisotropy of the local halo environment. Monthly Notices of the Royal Astronomical Society, 2018, 476, 3631-3647. | 4.4 | 73 |
| 21 | THE BUILDUP OF THE HUBBLE SEQUENCE IN THE COSMOS FIELD. Astrophysical Journal Letters, 2010, 714, L47-L51. | 8.3 | 70 |
| 22 | An adaptively refined phaseâ€“space element method for cosmological simulations and collisionless dynamics. Monthly Notices of the Royal Astronomical Society, 2016, 455, 1115-1133. | 4.4 | 64 |
| 23 | Large-scale dark matter simulations. Living Reviews in Solar Physics, 2022, 8, 1. | 11.4 | 57 |
| 24 | The large-scale orientations of disc galaxies. Monthly Notices of the Royal Astronomical Society, 0, , no-no. | 4.4 | 53 |
| 25 | Earth-mass haloes and the emergence of NFW density profiles. Monthly Notices of the Royal Astronomical Society, 2017, 471, 4687-4701. | 4.4 | 53 |
| 26 | RHAPSODY. I. STRUCTURAL PROPERTIES AND FORMATION HISTORY FROM A STATISTICAL SAMPLE OF RE-SIMULATED CLUSTER-SIZE HALOS. Astrophysical Journal, 2013, 763, 70. | 4.5 | 52 |
| 27 | Accurate initial conditions for cosmological N-body simulations: minimizing truncation and discreteness errors. Monthly Notices of the Royal Astronomical Society, 2020, 500, 663-683. | 4.4 | 48 |
| 28 | Cosmic web anisotropy is the primary indicator of halo assembly bias. Monthly Notices of the Royal Astronomical Society, 2019, 489, 2977-2996. | 4.4 | 46 |
| 29 | How closely do baryons follow dark matter on large scales?. Monthly Notices of the Royal Astronomical Society, 2013, 434, 1756-1764. | 4.4 | 44 |
| 30 | ENZO: An Adaptive Mesh Refinement Code for Astrophysics (Version 2.6). Journal of Open Source Software, 2019, 4, 1636. | 4.6 | 44 |
| 31 | Virial scaling of galaxies in clusters: bright to faint is cool to hot. Monthly Notices of the Royal Astronomical Society, 2013, 436, 460-469. | 4.4 | 42 |
| 32 | RHAPSODY. II. SUBHALO PROPERTIES AND THE IMPACT OF TIDAL STRIPPING FROM A STATISTICAL SAMPLE OF CLUSTER-SIZE HALOS. Astrophysical Journal, 2013, 767, 23. | 4.5 | 39 |
| 33 | DASH: a library of dynamical subhalo evolution. Monthly Notices of the Royal Astronomical Society, 2019, 485, 189-202. | 4.4 | 33 |
| 34 | 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. | 4.4 | 31 |
| 35 | POPULATION III STAR FORMATION IN LARGE COSMOLOGICAL VOLUMES. I. HALO TEMPORAL AND PHYSICAL ENVIRONMENT. Astrophysical Journal, 2013, 773, 108. | 4.5 | 28 |
| 36 | What sets the central structure of dark matter haloes?. Monthly Notices of the Royal Astronomical Society, 2018, 473, 4339-4359. | 4.4 | 27 |

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|---|---|---|---|
| 37 | 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. | 4.4 | 26 |
| 38 | Rhapsody-G simulations â€“ II. Baryonic growth and metal enrichment in massive galaxy clusters. Monthly Notices of the Royal Astronomical Society, 2016, 459, 4408-4427. | 4.4 | 25 |
| 39 | A Novel Approach to Visualizing Dark Matter Simulations. IEEE Transactions on Visualization and Computer Graphics, 2012, 18, 2078-2087. | 4.4 | 23 |
| 40 | Large-scale velocity dispersion and the cosmic web. Monthly Notices of the Royal Astronomical Society, 2019, 487, 228-245. | 4.4 | 20 |
| 41 | The locations of halo formation and the peaks formalism. Monthly Notices of the Royal Astronomical Society, 2014, 438, 878-899. | 4.4 | 18 |
| 42 | Accelerated orbital decay of supermassive black hole binaries in merging nuclear star clusters. Monthly Notices of the Royal Astronomical Society, 2020, 493, 3676-3689. | 4.4 | 18 |
| 43 | Higher order initial conditions for mixed baryonâ€“CDM simulations. Monthly Notices of the Royal Astronomical Society, 2021, 503, 426-445. | 4.4 | 18 |
| 44 | Simulating the complexity of the dark matter sheet I: numerical algorithms. Monthly Notices of the Royal Astronomical Society, 2020, 495, 4943-4964. | 4.4 | 17 |
| 45 | Shell-crossing in a Î›CDM Universe. Monthly Notices of the Royal Astronomical Society: Letters, 2021, 501, L71-L75. | 3.3 | 17 |
| 46 | General relativistic screening in cosmological simulations. Physical Review D, 2016, 94, . | 4.7 | 16 |
| 47 | Semiclassical path to cosmic large-scale structure. Physical Review D, 2019, 99, . | 4.7 | 16 |
| 48 | Measuring the tidal response of structure formation: anisotropic separate universe simulations using <scp>treepm</scp>. Monthly Notices of the Royal Astronomical Society, 2021, 503, 1473-1489. | 4.4 | 16 |
| 49 | A hierarchical field-level inference approach to reconstruction from sparse Lyman-Î± forest data. Astronomy and Astrophysics, 2020, 642, A139. | 5.1 | 15 |
| 50 | Fast simulations of cosmic large-scale structure with massive neutrinos. Journal of Cosmology and Astroparticle Physics, 2020, 2020, 018-018. | 5.4 | 15 |
| 51 | Substructure and merger detection in resolved NIKA Sunyaev-Zelâ€™dovich images of distant clusters. Astronomy and Astrophysics, 2018, 614, A118. | 5.1 | 14 |
| 52 | Unveiling the singular dynamics in the cosmic large-scale structure. Monthly Notices of the Royal Astronomical Society: Letters, 2021, 505, L90-L94. | 3.3 | 13 |
| 53 | Cosmological perturbations for two cold fluids in Î›CDM. Monthly Notices of the Royal Astronomical Society, 2021, 503, 406-425. | 4.4 | 13 |
| 54 | The AGORA High-resolution Galaxy Simulations Comparison Project. III. Cosmological Zoom-in Simulation of a Milky Wayâ€“mass Halo. Astrophysical Journal, 2021, 917, 64. | 4.5 | 12 |

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| 55 | Simulating the complexity of the dark matter sheet â€“ II. Halo and subhalo mass functions for non-cold dark matter models. Monthly Notices of the Royal Astronomical Society, 2021, 509, 1703-1719. | 4.4 | 11 |
| 56 | THE ANISOTROPIC TWO-POINT CORRELATION FUNCTIONS OF THE NONLINEAR TRACELESS TIDAL FIELD IN THE PRINCIPAL-AXIS FRAME. Astrophysical Journal, 2009, 705, 1469-1472. | 4.5 | 9 |
| 57 | LAGRANGIAN STATISTICS OF DARK HALOS IN A Î›CDM COSMOLOGY. Astrophysical Journal, 2009, 707, 761-767. | 4.5 | 8 |
| 58 | Quantifying the impact of baryon-CDM perturbations on halo clustering and baryon fraction. Journal of Cosmology and Astroparticle Physics, 2021, 2021, 023. | 5.4 | 8 |
| 59 | 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. | 4.4 | 7 |
| 60 | Intrinsic alignments in IllustrisTNG and their implications for weak lensing: Tidal shearing and tidal torquing mechanisms put to the test. Monthly Notices of the Royal Astronomical Society, 2022, 514, 2049-2072. | 4.4 | 6 |
| 61 | Non-halo structures and their effects on gravitational lensing. Monthly Notices of the Royal Astronomical Society, 2022, 511, 6019-6032. | 4.4 | 3 |
| 62 | Collisionless Dynamics and the Cosmic Web. Proceedings of the International Astronomical Union, 2014, 11, 87-96. | 0.0 | 0 |
| 63 | TRACING, ANALYZING AND VISUALIZING DARK MATTER IN PHASE SPACE. , 2015, , . | | 0 |