

Daniel J Price

List of Publications by Year in descending order

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Version: 2024-02-01

103
papers

6,269
citations

57758

44
h-index

74163

75
g-index

105
all docs

105
docs citations

105
times ranked

3672
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 1 | On the origin of magnetic fields in stars â€“ II. The effect of numerical resolution. Monthly Notices of the Royal Astronomical Society, 2022, 511, 746-764. | 4.4 | 9 |
| 2 | Common envelopes in massive stars: towards the role of radiation pressure and recombination energy in ejecting red supergiant envelopes. Monthly Notices of the Royal Astronomical Society, 2022, 512, 5462-5480. | 4.4 | 36 |
| 3 | Mapping the Planetary Wake in HD 163296 with Kinematics. Astrophysical Journal Letters, 2022, 929, L25. | 8.3 | 18 |
| 4 | Accretion rates in hierarchical triple systems with discs. Monthly Notices of the Royal Astronomical Society, 2022, 514, 906-919. | 4.4 | 11 |
| 5 | The theory of kinks â€“ I. A semi-analytic model of velocity perturbations due to planetâ€“disc interaction. Monthly Notices of the Royal Astronomical Society, 2021, 504, 5444-5454. | 4.4 | 21 |
| 6 | Formation of eccentric gas discs from sublimating or partially disrupted asteroids orbiting white dwarfs. Monthly Notices of the Royal Astronomical Society: Letters, 2021, 505, L21-L25. | 3.3 | 13 |
| 7 | Electromagnetic Signatures from the Tidal Tail of a Black Holeâ€“Neutron Star Merger. Astrophysical Journal, 2021, 915, 69. | 4.5 | 19 |
| 8 | Circumbinary and circumstellar discs around the eccentric binary IRAS 04158+2805 â€“ a testbed for binaryâ€“disc interaction. Monthly Notices of the Royal Astronomical Society, 2021, 507, 1157-1174. | 4.4 | 14 |
| 9 | A dusty filament and turbulent CO spirals in HDâ€“135344B - SAOâ€“206462. Monthly Notices of the Royal Astronomical Society, 2021, 507, 3789-3809. | 4.4 | 24 |
| 10 | Dust growth, fragmentation, and self-induced dust traps in <sc>phantom</sc>. Monthly Notices of the Royal Astronomical Society, 2021, 507, 2318-2338. | 4.4 | 9 |
| 11 | Dust traffic jams in inclined circumbinary protoplanetary discs â€“ I. Morphology and formation theory. Monthly Notices of the Royal Astronomical Society, 2021, 508, 2743-2757. | 4.4 | 9 |
| 12 | The Ophiuchus Disc Survey Employing ALMA (ODISEA) â€“ III. The evolution of substructures in massive discs at 3â€“5 au resolution. Monthly Notices of the Royal Astronomical Society, 2021, 501, 2934-2953. | 4.4 | 57 |
| 13 | On the Diversity of Asymmetries in Gapped Protoplanetary Disks. Astronomical Journal, 2021, 161, 33. | 4.7 | 69 |
| 14 | On the rise times in FU Orionis events. Monthly Notices of the Royal Astronomical Society: Letters, 2021, 510, L37-L41. | 3.3 | 16 |
| 15 | Gravitational waves from tidal disruption events: an open and comprehensive catalog. Monthly Notices of the Royal Astronomical Society, 2021, 510, 992-1001. | 4.4 | 7 |
| 16 | Flybys in protoplanetary discs â€“ II. Observational signatures. Monthly Notices of the Royal Astronomical Society, 2020, 491, 504-514. | 4.4 | 51 |
| 17 | Planet migration, resonant locking, and accretion streams in PDSâ€“70: comparing models and data. Monthly Notices of the Royal Astronomical Society, 2020, 499, 2015-2027. | 4.4 | 18 |
| 18 | The impact of recombination energy on simulations of the common-envelope binary interaction. Monthly Notices of the Royal Astronomical Society, 2020, 494, 5333-5349. | 4.4 | 34 |

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|----|---|-----|-----------|
| 19 | Are the spiral arms in the MWC 758 protoplanetary disc driven by a companion inside the cavity?. Monthly Notices of the Royal Astronomical Society, 2020, 498, 639-650. | 4.4 | 31 |
| 20 | On the cavity size in circumbinary discs. Monthly Notices of the Royal Astronomical Society, 2020, 498, 2936-2947. | 4.4 | 26 |
| 21 | Spirals, shadows & precession in HD 100453 – II. The hidden companion. Monthly Notices of the Royal Astronomical Society, 2020, 499, 3857-3867. | 4.4 | 10 |
| 22 | The evolution of large cavities and disc eccentricity in circumbinary discs. Monthly Notices of the Royal Astronomical Society, 2020, 499, 3362-3380. | 4.4 | 40 |
| 23 | Is the gap in the DS Tau disc hiding a planet?. Monthly Notices of the Royal Astronomical Society, 2020, 495, 1913-1926. | 4.4 | 17 |
| 24 | A solution to the overdamping problem when simulating dust-gas mixtures with smoothed particle hydrodynamics. Monthly Notices of the Royal Astronomical Society, 2020, 495, 3929-3934. | 4.4 | 13 |
| 25 | Rocking shadows in broken circumbinary discs. Monthly Notices of the Royal Astronomical Society: Letters, 2020, 493, L143-L147. | 3.3 | 11 |
| 26 | Binary-induced spiral arms inside the disc cavity of AB Aurigae. Monthly Notices of the Royal Astronomical Society, 2020, 496, 2362-2371. | 4.4 | 22 |
| 27 | A smoothed particle hydrodynamics algorithm for multigrain dust with separate sets of particles. Monthly Notices of the Royal Astronomical Society, 2020, 499, 3806-3818. | 4.4 | 3 |
| 28 | A Tale of Two Transition Disks: ALMA Long-baseline Observations of ISO-Oph 2 Reveal Two Closely Packed Nonaxisymmetric Rings and a $\sim 1/2$ au Cavity. Astrophysical Journal Letters, 2020, 902, L33. | 8.3 | 11 |
| 29 | There is no magnetic braking catastrophe: low-mass star cluster and protostellar disc formation with non-ideal magnetohydrodynamics. Monthly Notices of the Royal Astronomical Society, 2019, 489, 1719-1741. | 4.4 | 54 |
| 30 | Signatures of an eccentric disc cavity: Dust and gas in IRS 48. Monthly Notices of the Royal Astronomical Society, 2019, 490, 2579-2587. | 4.4 | 37 |
| 31 | General relativistic smoothed particle hydrodynamics. Monthly Notices of the Royal Astronomical Society, 2019, 485, 819-842. | 4.4 | 17 |
| 32 | Evidence for a Circumplanetary Disk around Protoplanet PDS 70 b. Astrophysical Journal Letters, 2019, 877, L33. | 8.3 | 59 |
| 33 | Einstein's Universe: Cosmological structure formation in numerical relativity. Physical Review D, 2019, 99, . | 4.7 | 43 |
| 34 | Misaligned snowplough effect and the electromagnetic counterpart to black hole binary mergers. Monthly Notices of the Royal Astronomical Society, 2019, 484, 31-38. | 4.4 | 2 |
| 35 | Stable anisotropic heat conduction in smoothed particle hydrodynamics. Monthly Notices of the Royal Astronomical Society, 2019, 483, 4901-4909. | 4.4 | 5 |
| 36 | Extending common envelope simulations from Roche lobe overflow to the nebular phase. Monthly Notices of the Royal Astronomical Society, 2019, 484, 631-647. | 4.4 | 55 |

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|----|--|-----|-----------|
| 37 | Flybys in protoplanetary discs: I. Gas and dust dynamics. Monthly Notices of the Royal Astronomical Society, 2019, 483, 4114-4139. | 4.4 | 85 |
| 38 | Super-Earths in the TWÂHya disc. Monthly Notices of the Royal Astronomical Society: Letters, 2019, 484, L130-L135. | 3.3 | 16 |
| 39 | MULTIGRAIN: a smoothed particle hydrodynamic algorithm for multiple small dust grains and gas. Monthly Notices of the Royal Astronomical Society, 2018, 476, 2186-2198. | 4.4 | 34 |
| 40 | The collapse of a molecular cloud core to stellar densities using radiation non-ideal magnetohydrodynamics. Monthly Notices of the Royal Astronomical Society, 2018, 475, 1859-1880. | 4.4 | 47 |
| 41 | Circumbinary, not transitional: on the spiral arms, cavity, shadows, fast radial flows, streamers, and horseshoe in the HD142527 disc. Monthly Notices of the Royal Astronomical Society, 2018, 477, 1270-1284. | 4.4 | 122 |
| 42 | Publisher Note: Circumbinary, not transitional: On the spiral arms, cavity, shadows, fast radial flows, streamers and horseshoe in the HD142527 disc. Monthly Notices of the Royal Astronomical Society, 2018, 481, 3169-3169. | 4.4 | 3 |
| 43 | <scp>Phantom</scp>: A Smoothed Particle Hydrodynamics and Magnetohydrodynamics Code for Astrophysics. Publications of the Astronomical Society of Australia, 2018, 35, . | 3.4 | 267 |
| 44 | The Trouble with Hubble: Local versus Global Expansion Rates in Inhomogeneous Cosmological Simulations with Numerical Relativity. Astrophysical Journal Letters, 2018, 865, L4. | 8.3 | 32 |
| 45 | On the origin of magnetic fields in stars. Monthly Notices of the Royal Astronomical Society, 2018, 481, 2450-2457. | 4.4 | 24 |
| 46 | Hall effect-driven formation of gravitationally unstable discs in magnetized molecular cloud cores. Monthly Notices of the Royal Astronomical Society, 2018, 480, 4434-4442. | 4.4 | 24 |
| 47 | On the Papaloizouâ€Pringle instability in tidal disruption events. Monthly Notices of the Royal Astronomical Society, 2018, 474, 1737-1745. | 4.4 | 14 |
| 48 | The effect of extreme ionization rates during the initial collapse of a molecular cloud core. Monthly Notices of the Royal Astronomical Society, 2018, 476, 2063-2074. | 4.4 | 26 |
| 49 | Planet Formation in the ALMA Era. , 2018, , 155-167. | | 0 |
| 50 | On the fragmentation boundary in magnetized self-gravitating discs. Monthly Notices of the Royal Astronomical Society, 2017, 466, 3406-3416. | 4.4 | 21 |
| 51 | Inhomogeneous cosmology with numerical relativity. Physical Review D, 2017, 95, . | 4.7 | 47 |
| 52 | Does turbulence determine the initial mass function?. Monthly Notices of the Royal Astronomical Society, 2017, 465, 105-110. | 4.4 | 17 |
| 53 | Is the dust-to-gas ratio constant in molecular clouds?. Monthly Notices of the Royal Astronomical Society: Letters, 2017, 471, L52-L56. | 3.3 | 49 |
| 54 | On the origin of horseshoes in transitional discs. Monthly Notices of the Royal Astronomical Society, 2017, 464, 1449-1455. | 4.4 | 79 |

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|----|---|-----|-----------|
| 55 | The impact of non-ideal magnetohydrodynamics on binary star formation. Monthly Notices of the Royal Astronomical Society, 2017, 466, 1788-1804. | 4.4 | 33 |
| 56 | Magnetic field evolution in tidal disruption events. Monthly Notices of the Royal Astronomical Society, 2017, 469, 4879-4888. | 4.4 | 35 |
| 57 | Erratum and Addendum: Smoothed particle magnetohydrodynamic simulations of protostellar outflows with misaligned magnetic field and rotation axes. Monthly Notices of the Royal Astronomical Society, 2017, 464, 2499-2501. | 4.4 | 1 |
| 58 | A comparison between grid and particle methods on the small-scale dynamo in magnetized supersonic turbulence. Monthly Notices of the Royal Astronomical Society, 2016, 461, 1260-1275. | 4.4 | 23 |
| 59 | Grand Challenges in Protoplanetary Disc Modelling. Publications of the Astronomical Society of Australia, 2016, 33, . | 3.4 | 61 |
| 60 | Constrained hyperbolic divergence cleaning in smoothed particle magnetohydrodynamics with variable cleaning speeds. Journal of Computational Physics, 2016, 322, 326-344. | 3.8 | 43 |
| 61 | Post-periapsis pancakes: sustenance for self-gravity in tidal disruption events. Monthly Notices of the Royal Astronomical Society, 2016, 455, 3612-3627. | 4.4 | 49 |
| 62 | On dust entrainment in photoevaporative winds. Monthly Notices of the Royal Astronomical Society, 2016, 461, 742-759. | 4.4 | 47 |
| 63 | Two mechanisms for dust gap opening in protoplanetary discs. Monthly Notices of the Royal Astronomical Society: Letters, 2016, 459, L1-L5. | 3.3 | 81 |
| 64 | Suppression of the accretion rate in thin discs around binary black holes. Monthly Notices of the Royal Astronomical Society, 2016, 460, 1243-1253. | 4.4 | 53 |
| 65 | Disc formation from tidal disruptions of stars on eccentric orbits by Schwarzschild black holes. Monthly Notices of the Royal Astronomical Society, 2016, 455, 2253-2266. | 4.4 | 159 |
| 66 | Can non-ideal magnetohydrodynamics solve the magnetic braking catastrophe?. Monthly Notices of the Royal Astronomical Society, 2016, 457, 1037-1061. | 4.4 | 115 |
| 67 | Gas squeezing during the merger of a supermassive black hole binary. Monthly Notices of the Royal Astronomical Society, 2016, 457, 939-948. | 4.4 | 24 |
| 68 | A fast and explicit algorithm for simulating the dynamics of small dust grains with smoothed particle hydrodynamics. Monthly Notices of the Royal Astronomical Society, 2015, 451, 813-826. | 4.4 | 64 |
| 69 | Smoothed particle magnetohydrodynamic simulations of protostellar outflows with misaligned magnetic field and rotation axes. Monthly Notices of the Royal Astronomical Society, 2015, 451, 288-299. | 4.4 | 32 |
| 70 | On the Bardeen-Petterson effect in black hole accretion discs. Monthly Notices of the Royal Astronomical Society, 2015, 448, 1526-1540. | 4.4 | 95 |
| 71 | Tearing up a misaligned accretion disc with a binary companion. Monthly Notices of the Royal Astronomical Society, 2015, 449, 1251-1258. | 4.4 | 62 |
| 72 | EVIDENCE FOR ENHANCED PERSISTENT EMISSION DURING SUB-EDDINGTON THERMONUCLEAR BURSTS. Astrophysical Journal, 2015, 801, 60. | 4.5 | 68 |

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|----|--|-----|-----------|
| 73 | Dusty gas with one fluid. Monthly Notices of the Royal Astronomical Society, 2014, 440, 2136-2146. | 4.4 | 85 |
| 74 | Dust and gas mixtures with multiple grain species – a one-fluid approach. Monthly Notices of the Royal Astronomical Society, 2014, 444, 1940-1956. | 4.4 | 54 |
| 75 | The morphology of the Milky Way – I. Reconstructing CO maps from simulations in fixed potentials. Monthly Notices of the Royal Astronomical Society, 2014, 444, 919-941. | 4.4 | 54 |
| 76 | Dusty gas with one fluid in smoothed particle hydrodynamics. Monthly Notices of the Royal Astronomical Society, 2014, 440, 2147-2163. | 4.4 | 35 |
| 77 | GIANT OUTBURSTS IN Be/X-RAY BINARIES. Astrophysical Journal Letters, 2014, 790, L34. | 8.3 | 79 |
| 78 | Collapse of a molecular cloud core to stellar densities: stellar-core and outflow formation in radiation magnetohydrodynamic simulations. Monthly Notices of the Royal Astronomical Society, 2014, 437, 77-95. | 4.4 | 103 |
| 79 | THE KOZAI-LIDOV MECHANISM IN HYDRODYNAMICAL DISKS. Astrophysical Journal Letters, 2014, 792, L33. | 8.3 | 122 |
| 80 | Modelling Magnetised Protostellar Jets with SPH. Thirty Years of Astronomical Discovery With UKIRT, 2014, , 101-104. | 0.3 | 0 |
| 81 | Wave-like warp propagation in circumbinary discs – I. Analytic theory and numerical simulations. Monthly Notices of the Royal Astronomical Society, 2013, 433, 2142-2156. | 4.4 | 113 |
| 82 | A switch to reduce resistivity in smoothed particle magnetohydrodynamics. Monthly Notices of the Royal Astronomical Society, 2013, 436, 2810-2817. | 4.4 | 36 |
| 83 | EVIDENCE FOR ACCRETION RATE CHANGE DURING TYPE I X-RAY BURSTS. Astrophysical Journal, 2013, 772, 94. | 4.5 | 108 |
| 84 | Constrained hyperbolic divergence cleaning for smoothed particle magnetohydrodynamics. Journal of Computational Physics, 2012, 231, 7214-7236. | 3.8 | 83 |
| 85 | Response of a circumbinary accretion disc to black hole mass loss. Monthly Notices of the Royal Astronomical Society, 2012, 425, 1958-1966. | 4.4 | 15 |
| 86 | Dusty gas with smoothed particle hydrodynamics - II. Implicit timestepping and astrophysical drag regimes. Monthly Notices of the Royal Astronomical Society, 2012, 420, 2365-2376. | 4.4 | 54 |
| 87 | Dusty gas with smoothed particle hydrodynamics - I. Algorithm and test suite. Monthly Notices of the Royal Astronomical Society, 2012, 420, 2345-2364. | 4.4 | 100 |
| 88 | Resolving high Reynolds numbers in smoothed particle hydrodynamics simulations of subsonic turbulence. Monthly Notices of the Royal Astronomical Society: Letters, 2012, 420, L33-L37. | 3.3 | 41 |
| 89 | Collimated jets from the first core. Monthly Notices of the Royal Astronomical Society: Letters, 2012, 423, L45-L49. | 3.3 | 65 |
| 90 | Smoothed particle hydrodynamics and magnetohydrodynamics. Journal of Computational Physics, 2012, 231, 759-794. | 3.8 | 503 |

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|-----|--|-----|-----------|
| 91 | Rapid AGN accretion from counter-rotating discs. Monthly Notices of the Royal Astronomical Society, 2012, 422, 2547-2552. | 4.4 | 45 |
| 92 | On the accumulation of planetesimals near disc gaps created by protoplanets. Monthly Notices of the Royal Astronomical Society, 2012, 423, 1450-1462. | 4.4 | 81 |
| 93 | dustybox and dustywave: two test problems for numerical simulations of two-fluid astrophysical dust-gas mixtures. Monthly Notices of the Royal Astronomical Society, 2011, 418, 1491-1497. | 4.4 | 41 |
| 94 | THE DENSITY VARIANCEâ€“MACH NUMBER RELATION IN SUPERSONIC, ISOTHERMAL TURBULENCE. Astrophysical Journal Letters, 2011, 727, L21. | 8.3 | 127 |
| 95 | Magnetic fields and Turbulence in Star Formation using Smoothed Particle Hydrodynamics. Proceedings of the International Astronomical Union, 2010, 6, 169-177. | 0.0 | 0 |
| 96 | A method for reconstructing the PDF of a 3D turbulent density field from 2D observations. Monthly Notices of the Royal Astronomical Society: Letters, 2010, 405, L56-L60. | 3.3 | 59 |
| 97 | Smoothed Particle Magnetohydrodynamics - IV. Using the vector potential. Monthly Notices of the Royal Astronomical Society, 2010, 401, 1475-1499. | 4.4 | 47 |
| 98 | On the diffusive propagation of warps in thin accretion discs. Monthly Notices of the Royal Astronomical Society, 2010, , . | 4.4 | 122 |
| 99 | Inefficient star formation: the combined effects of magnetic fields and radiative feedback. Monthly Notices of the Royal Astronomical Society, 2009, 398, 33-46. | 4.4 | 108 |
| 100 | Modelling discontinuities and Kelvinâ€“Helmholtz instabilities in SPH. Journal of Computational Physics, 2008, 227, 10040-10057. | 3.8 | 311 |
| 101 | The effect of magnetic fields on star cluster formation. Monthly Notices of the Royal Astronomical Society, 2008, 385, 1820-1834. | 4.4 | 142 |
| 102 | <scp>SPLASH</scp>: An Interactive Visualisation Tool for Smoothed Particle Hydrodynamics Simulations. Publications of the Astronomical Society of Australia, 2007, 24, 159-173. | 3.4 | 590 |
| 103 | A comparison between grid and particle methods on the statistics of driven, supersonic, isothermal turbulence. Monthly Notices of the Royal Astronomical Society, 0, , no-no. | 4.4 | 99 |