

Steven A Balbus

List of Publications by Year in descending order

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Version: 2024-02-01

26
papers

6,827
citations

623188

14
h-index

552369

26
g-index

27
all docs

27
docs citations

27
times ranked

3376
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 1 | A powerful local shear instability in weakly magnetized disks. I - Linear analysis. II - Nonlinear evolution. <i>Astrophysical Journal</i> , 1991, 376, 214. | 1.6 | 3,498 |
| 2 | Instability, turbulence, and enhanced transport in accretion disks. <i>Reviews of Modern Physics</i> , 1998, 70, 1-53. | 16.4 | 2,085 |
| 3 | A Powerful Local Shear Instability in Weakly Magnetized Disks. II. Nonlinear Evolution. <i>Astrophysical Journal</i> , 1991, 376, 223. | 1.6 | 344 |
| 4 | On the Dynamical Foundations of $\hat{\nu}$ Disks. <i>Astrophysical Journal</i> , 1999, 521, 650-658. | 1.6 | 264 |
| 5 | The ionization fraction in $\hat{\nu}$ -models of protoplanetary discs. <i>Monthly Notices of the Royal Astronomical Society</i> , 2002, 329, 18-28. | 1.6 | 234 |
| 6 | Stellar mergers as the origin of magnetic massive stars. <i>Nature</i> , 2019, 574, 211-214. | 13.7 | 126 |
| 7 | The spectral evolution of disc dominated tidal disruption events. <i>Monthly Notices of the Royal Astronomical Society</i> , 2020, 492, 5655-5674. | 1.6 | 40 |
| 8 | Long-term evolution of a magnetic massive merger product. <i>Monthly Notices of the Royal Astronomical Society</i> , 2020, 495, 2796-2812. | 1.6 | 37 |
| 9 | An accretion disc instability induced by a temperature sensitive $\hat{\nu}$ parameter. <i>Monthly Notices of the Royal Astronomical Society</i> , 2014, 441, 681-689. | 1.6 | 21 |
| 10 | The evolution of Kerr discs and late-time tidal disruption event light curves. <i>Monthly Notices of the Royal Astronomical Society</i> , 2018, 481, 3348-3356. | 1.6 | 21 |
| 11 | ASASSN-15lh: a TDE about a maximally rotating $10^9 M_{\odot}$ black hole. <i>Monthly Notices of the Royal Astronomical Society: Letters</i> , 2020, 497, L13-L18. | 1.2 | 21 |
| 12 | Evolution of relativistic thin discs with a finite ISCO stress $\hat{\nu}$ I. Stalled accretion. <i>Monthly Notices of the Royal Astronomical Society</i> , 2019, 489, 132-142. | 1.6 | 17 |
| 13 | When is high Reynolds number shear flow not turbulent?. <i>Journal of Fluid Mechanics</i> , 2017, 824, 1-4. | 1.4 | 16 |
| 14 | The general relativistic thin disc evolution equation. <i>Monthly Notices of the Royal Astronomical Society</i> , 2017, 471, 4832-4838. | 1.6 | 16 |
| 15 | Dynamical, biological and anthropic consequences of equal lunar and solar angular radii. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2014, 470, 20140263. | 1.0 | 15 |
| 16 | The Goldreich-Schubert-Fricke instability in stellar radiative zones. <i>Monthly Notices of the Royal Astronomical Society</i> , 2016, 460, 338-344. | 1.6 | 12 |
| 17 | Evolution of relativistic thin discs with a finite ISCO stress $\hat{\nu}$ II. Late time behaviour. <i>Monthly Notices of the Royal Astronomical Society</i> , 2019, 489, 143-152. | 1.6 | 12 |
| 18 | Surprises in astrophysical gasdynamics. <i>Reports on Progress in Physics</i> , 2016, 79, 066901. | 8.1 | 9 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 19 | Tides: A key environmental driver of osteichthyan evolution and the fish-tetrapod transition? Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2020, 476, 20200355. | 1.0 | 7 |
| 20 | Simplified derivation of the gravitational wave stress tensor from the linearized Einstein field equations. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 11662-11666. | 3.3 | 6 |
| 21 | An upper observable black hole mass scale for tidal destruction events with thermal X-ray spectra. Monthly Notices of the Royal Astronomical Society, 2021, 505, 1629-1644. | 1.6 | 6 |
| 22 | Energy partition between Alfvénic and compressive fluctuations in magnetorotational turbulence with near-azimuthal mean magnetic field. Journal of Plasma Physics, 2022, 88, . | 0.7 | 6 |
| 23 | On the high-frequency spectrum of a classical accretion disc. Monthly Notices of the Royal Astronomical Society: Letters, 2014, 444, L54-L57. | 1.2 | 4 |
| 24 | Elasticity of tangled magnetic fields. Journal of Plasma Physics, 2020, 86, . | 0.7 | 4 |
| 25 | Hard X-ray emission from a Compton scattering corona in large black hole mass tidal disruption events. Monthly Notices of the Royal Astronomical Society, 2021, 504, 4730-4742. | 1.6 | 4 |
| 26 | A Poynting theorem formulation for the gravitational wave stress pseudo tensor. International Journal of Modern Physics D, 0, , 2142003. | 0.9 | 1 |