Eric R Coughlin

List of Publications by Year in Descending Order

50 papers	959 citations	18 h-index	30 g-index
50 ext. papers	1,173 ext. citations	5.8 avg, IF	5.18 L-index

#	Paper	IF	Citations
50	The Eccentric Nature of Eccentric Tidal Disruption Events. *Astrophysical Journal*, **2022**, 924, 34	4.7	1
49	Stars Crushed by Black Holes. II. A Physical Model of Adiabatic Compression and Shock Formation in Tidal Disruption Events. *Astrophysical Journal*, **2022**, 926, 47	4.7	1
48	A Physical Model of Delayed Rebrightenings in Shock-interacting Supernovae without Narrow-line Emission. *Astrophysical Journal*, **2022**, 927, 148	4.7	
47	Stellar Revival and Repeated Flares in Deeply Plunging Tidal Disruption Events. *Astrophysical Journal Letters*, **2022**, 927, L25	7.9	2
46	Using the Hills Mechanism to Generate Repeating Partial Tidal Disruption Events and ASASSN-14ko. *Astrophysical Journal Letters*, **2022**, 929, L20	7.9	2
45	Stars Crushed by Black Holes. I. On the Energy Distribution of Stellar Debris in Tidal Disruption Events. *Astrophysical Journal*, **2021**, 923, 184	4.7	4
44	Partial, Zombie, and Full Tidal Disruption of Stars by Supermassive Black Holes. *Astrophysical Journal*, **2021**, 922, 168	4.7	6
43	Dynamical stability of giant planets: the critical adiabatic index in the presence of a solid core. *Monthly Notices of the Royal Astronomical Society*, **2021**, 507, 6215-6224	4.3	
42	The Gravitational Instability of Adiabatic Filaments. *Astrophysical Journal, Supplement Series*, **2020**, 247, 51	8	11
41	A Mildly Relativistic Outflow from the Energetic, Fast-rising Blue Optical Transient CSS161010 in a Dwarf Galaxy. *Astrophysical Journal Letters*, **2020**, 895, L23	7.9	34
40	Variability in Short Gamma-Ray Bursts: Gravitationally Unstable Tidal Tails. *Astrophysical Journal Letters*, **2020**, 896, L38	7.9	9
39	The structure of nearly isothermal, adiabatic shock waves. *Monthly Notices of the Royal Astronomical Society: Letters*, **2020**, 496, L43-L47	4.3	1
38	Short Gamma-Ray Bursts and the Decompression of Neutron Star Matter in Tidal Streams. *Astrophysical Journal Letters*, **2020**, 900, L12	7.9	0
37	Fallback Rates from Partial Tidal Disruption Events. *Astrophysical Journal*, **2020**, 899, 36	4.7	17
36	The Persistence of Pancakes and the Revival of Self-gravity in Tidal Disruption Events. *Astrophysical Journal Letters*, **2020**, 900, L39	7.9	4
35	Non-thermal filaments from the tidal destruction of clouds in the Galactic centre. *Monthly Notices of the Royal Astronomical Society*, **2020**, 501, 1868-1877	4.3	2
34	Structured, relativistic jets driven by radiation. *Monthly Notices of the Royal Astronomical Society*, **2020**, 499, 3158-3177	4.3	1

33	Thawing the frozen-in approximation: implications for self-gravity in deeply plunging tidal disruption events. *Monthly Notices of the Royal Astronomical Society: Letters*, **2019**, 485, L146-L150	4.3	34
32	Black hole accretion discs and luminous transients in failed supernovae from non-rotating supergiants. *Monthly Notices of the Royal Astronomical Society: Letters*, **2019**, 485, L83-L88	4.3	40
31	An Embedded X-Ray Source Shines through the Aspherical AT 2018cow: Revealing the Inner Workings of the Most Luminous Fast-evolving Optical Transients. *Astrophysical Journal*, **2019**, 872, 18	4.7	108
30	Tidal Disruption Events: The Role of Stellar Spin. *Astrophysical Journal*, **2019**, 872, 163	4.7	34
29	Weak Shock Propagation with Accretion. II. Stability of Self-similar Solutions to Radial Perturbations. *Astrophysical Journal*, **2019**, 874, 58	4.7	10
28	Energy-conserving Relativistic Corrections to Strong-shock Propagation. *Astrophysical Journal*, **2019** , 880, 108	4.7	6
27	The Influence of Black Hole Binarity on Tidal Disruption Events. *Space Science Reviews*, **2019**, 215, 1	7.5	4
26	Ultra-deep tidal disruption events: prompt self-intersections and observables. *Monthly Notices of the Royal Astronomical Society*, **2019**, 488, 5267-5278	4.3	6
25	On the Diversity of Fallback Rates from Tidal Disruption Events with Accurate Stellar Structure. *Astrophysical Journal Letters*, **2019**, 882, L26	7.9	23
24	Weak Shock Propagation with Accretion. III. A Numerical Study on Shock Propagation and Stability. *Astrophysical Journal*, **2019**, 878, 150	4.7	5
23	Partial Stellar Disruption by a Supermassive Black Hole: Is the Light Curve Really Proportional to t □/4?. *Astrophysical Journal Letters*, **2019**, 883, L17	7.9	28
22	Gravitational interactions of stars with supermassive black hole binaries □I. Hypervelocity stars. *Monthly Notices of the Royal Astronomical Society*, **2019**, 482, 2132-2148	4.3	10
21	A loud quasi-periodic oscillation after a star is disrupted by a massive black hole. *Science*, **2019**, 363, 531-534	33.5	31
20	Gravitational interactions of stars with supermassive black hole binaries □. Tidal disruption events. *Monthly Notices of the Royal Astronomical Society*, **2018**, 477, 4009-4034	4.3	13
19	Tidal disruption by extreme mass ratio binaries and application to ASASSN-15lh. *Monthly Notices of the Royal Astronomical Society*, **2018**, 474, 3857-3865	4.3	18
18	Mass ejection in failed supernovae: variation with stellar progenitor. *Monthly Notices of the Royal Astronomical Society*, **2018**, 476, 2366-2383	4.3	56
17	Stellar Binaries Incident on Supermassive Black Hole Binaries: Implications for Double Tidal Disruption Events, Calcium-rich Transients, and Hypervelocity Stars. *Astrophysical Journal Letters*, **2018**, 863, L24	7.9	12
16	Weak Shock Propagation with Accretion. I. Self-similar Solutions and Application to Failed Supernovae. *Astrophysical Journal*, **2018**, 863, 158	4.7	19

15	A physical model of mass ejection in failed supernovae. *Monthly Notices of the Royal Astronomical Society*, **2018**, 477, 1225-1238	4.3	22
14	Super-Eddington accretion in tidal disruption events: the impactof realistic fallback rates on accretion rates. *Monthly Notices of the Royal Astronomical Society*, **2018**, 478, 3016-3024	4.3	24
13	SPHERICALLY SYMMETRIC, COLD COLLAPSE: THE EXACT SOLUTIONS AND A COMPARISON WITH SELF-SIMILAR SOLUTIONS. *Astrophysical Journal*, **2017**, 835, 40	4.7	4
12	Tidal disruption events from supermassive black hole binaries. *Monthly Notices of the Royal Astronomical Society*, **2017**, 465, 3840-3864	4.3	51
11	The fine line between total and partial tidal disruption events. *Astronomy and Astrophysics*, **2017**, 600, A124	5.1	40
10	Circumbinary discs from tidal disruption events. *Monthly Notices of the Royal Astronomical Society: Letters*, **2017**, 471, L115-L119	4.3	5
9	THE RADIATION HYDRODYNAMICS OF RELATIVISTIC SHEAR FLOWS. *Astrophysical Journal*, **2016**, 825, 21	4.7	1
8	Post-periapsis pancakes: sustenance for self-gravity in tidal disruption events. *Monthly Notices of the Royal Astronomical Society*, **2016**, 455, 3612-3627	4.3	46
7	On the structure of tidally disrupted stellar debris streams. *Monthly Notices of the Royal Astronomical Society*, **2016**, 459, 3089-3103	4.3	37
6	VARIABILITY IN TIDAL DISRUPTION EVENTS: GRAVITATIONALLY UNSTABLE STREAMS. *Astrophysical Journal Letters*, **2015**, 808, L11	7.9	59
5	VISCOUS BOUNDARY LAYERS OF RADIATION-DOMINATED, RELATIVISTIC JETS. I. THE TWO-STREAM MODEL. *Astrophysical Journal*, **2015**, 809, 1	4.7	8
4	VISCOUS BOUNDARY LAYERS OF RADIATION-DOMINATED, RELATIVISTIC JETS. II. THE FREE-STREAMING JET MODEL. *Astrophysical Journal*, **2015**, 809, 2	4.7	6
3	THE GENERAL RELATIVISTIC EQUATIONS OF RADIATION HYDRODYNAMICS IN THE VISCOUS LIMIT. *Astrophysical Journal*, **2014**, 797, 103	4.7	12
2	HYPERACCRETION DURING TIDAL DISRUPTION EVENTS: WEAKLY BOUND DEBRIS ENVELOPES AND JETS. *Astrophysical Journal*, **2014**, 781, 82	4.7	88
1	Tidal Disruption Disks Formed and Fed by Stream-Stream and Stream-Disk Interactions in Global GRHD Simulations. *Monthly Notices of the Royal Astronomical Society*,	4.3	4