Matthew J Turk

List of Publications by Year
in descending order

47 papers	5,908 citations	172457 29 h-index	289244 40 g-index
49 all docs	49 docs citations	49 times ranked	3842 citing authors

#	Article	IF	Citations
1	yt: A MULTI-CODE ANALYSIS TOOLKIT FOR ASTROPHYSICAL SIMULATION DATA. Astrophysical Journal, Supplement Series, 2011, 192, 9.	7.7	959
2	ENZO: AN ADAPTIVE MESH REFINEMENT CODE FOR ASTROPHYSICS. Astrophysical Journal, Supplement Series, 2014, 211, 19.	7.7	615
3	First Sagittarius A* Event Horizon Telescope Results. I. The Shadow of the Supermassive Black Hole in the Center of the Milky Way. Astrophysical Journal Letters, 2022, 930, L12.	8.3	568
4	THE BIRTH OF A GALAXY: PRIMORDIAL METAL ENRICHMENT AND STELLAR POPULATIONS. Astrophysical Journal, 2012, 745, 50.	4.5	357
5	The birth of a galaxy â€“ III. Propelling reionization with the faintest galaxies. Monthly Notices of the Royal Astronomical Society, 2014, 442, 2560-2579.	4.4	321
6	The Formation of Population III Binaries from Cosmological Initial Conditions. Science, 2009, 325, 601-605.	12.6	301
7	First Sagittarius A* Event Horizon Telescope Results. VI. Testing the Black Hole Metric. Astrophysical Journal Letters, 2022, 930, L17.	8.3	215
8	grackle: a chemistry and cooling library for astrophysics. Monthly Notices of the Royal Astronomical Society, 2017, 466, 2217-2234.	4.4	201
9	First Sagittarius A* Event Horizon Telescope Results. V. Testing Astrophysical Models of the Galactic Center Black Hole. Astrophysical Journal Letters, 2022, 930, L16.	8.3	187
10	Resolving the Formation of Protogalaxies. II. Central Gravitational Collapse. Astrophysical Journal, 2008, 682, 745-757.	4.5	185
11	THE AGORA HIGH-RESOLUTION GALAXY SIMULATIONS COMPARISON PROJECT. Astrophysical Journal, Supplement Series, 2014, 210, 14.	7.7	185
12	First Sagittarius A* Event Horizon Telescope Results. III. Imaging of the Galactic Center Supermassive Black Hole. Astrophysical Journal Letters, 2022, 930, L14.	8.3	163
13	The formation of submillimetre-bright galaxies from gas infall over a billion years. Nature, 2015, 525, 496-499.	27.8	154
14	The birth of a galaxy â€“ II. The role of radiation pressure. Monthly Notices of the Royal Astronomical Society, 2012, 427, 311-326.	4.4	147
15	First Sagittarius A* Event Horizon Telescope Results. II. EHT and Multiwavelength Observations, Data Processing, and Calibration. Astrophysical Journal Letters, 2022, 930, L13.	8.3	142
16	First Sagittarius A* Event Horizon Telescope Results. IV. Variability, Morphology, and Black Hole Mass. Astrophysical Journal Letters, 2022, 930, L15.	8.3	137
17	MAGNETIC FIELDS IN POPULATION III STAR FORMATION. Astrophysical Journal, 2012, 745, 154.	4.5	134
18	THREE MODES OF METAL-ENRICHED STAR FORMATION IN THE EARLY UNIVERSE. Astrophysical Journal, 2009, 691, 441-451.	4.5	126

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19	Constraints on hydrodynamical subgrid models from quasar absorption line studies of the simulated circumgalactic medium. Monthly Notices of the Royal Astronomical Society, 2013, 430, 1548-1565.	4.4	114
20	Crops In Silico: Generating Virtual Crops Using an Integrative and Multi-scale Modeling Platform. Frontiers in Plant Science, 2017, 8, 786.	3.6	102
21	THE AGORA HIGH-RESOLUTION GALAXY SIMULATIONS COMPARISON PROJECT. II. ISOLATED DISK TEST. Astrophysical Journal, 2016, 833, 202.	4.5	88
22	EFFECTS OF VARYING THE THREE-BODY MOLECULAR HYDROGEN FORMATION RATE IN PRIMORDIAL STAR FORMATION. Astrophysical Journal, 2011, 726, 55.	4.5	58
23	gamer-2: a GPU-accelerated adaptive mesh refinement code â€“ accuracy, performance, and scalability. Monthly Notices of the Royal Astronomical Society, 2018, 481, 4815-4840.	4.4	49
24	ENZO: An Adaptive Mesh Refinement Code for Astrophysics (Version 2.6). Journal of Open Source Software, 2019, 4, 1636.	4.6	44
25	Machine learning and cosmological simulations â€“ II. Hydrodynamical simulations. Monthly Notices of the Royal Astronomical Society, 2016, 457, 1162-1179.	4.4	41
26	Machine learning and cosmological simulations â€“ I. Semi-analytical models. Monthly Notices of the Royal Astronomical Society, 2016, 455, 642-658.	4.4	38
27	Multiscale computational models can guide experimentation and targeted measurements for crop improvement. Plant Journal, 2020, 103, 21-31.	5.7	36
28	DWARF GALAXIES WITH IONIZING RADIATION FEEDBACK. I. ESCAPE OF IONIZING PHOTONS. Astrophysical Journal, 2013, 775, 109.	4.5	35
29	powderday: Dust Radiative Transfer for Galaxy Simulations. Astrophysical Journal, Supplement Series, 2021, 252, 12.	7.7	35
30	POPULATION III STAR FORMATION IN LARGE COSMOLOGICAL VOLUMES. I. HALO TEMPORAL AND PHYSICAL ENVIRONMENT. Astrophysical Journal, 2013, 773, 108.	4.5	28
31	DWARF GALAXIES WITH IONIZING RADIATION FEEDBACK. II. SPATIALLY RESOLVED STAR FORMATION RELATION. Astrophysical Journal, 2013, 779, 8.	4.5	24
32	PARALLEL HOP: A SCALABLE HALO FINDER FOR MASSIVE COSMOLOGICAL DATA SETS. Astrophysical Journal, Supplement Series, 2010, 191, 43-57.	7.7	20
33	Characterizing and Mitigating Intraday Variability: Reconstructing Source Structure in Accreting Black Holes with mm-VLBI. Astrophysical Journal Letters, 2022, 930, L21.	8.3	20
34	A Universal Power-law Prescription for Variability from Synthetic Images of Black Hole Accretion Flows. Astrophysical Journal Letters, 2022, 930, L20.	8.3	20
35	HIGH-ENTROPY POLAR REGIONS AROUND THE FIRST PROTOSTARS. Astrophysical Journal Letters, 2010, 725, L140-L144.	8.3	15
36	unyt: Handle, manipulate, and convert data with units in Python. Journal of Open Source Software, 2018, 3, 809.	4.6	15

#	Article	IF	Citations
37	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
38	Scaling a code in the human dimension. , 2013, , .		10
39	Pooch: A friend to fetch your data files. Journal of Open Source Software, 2020, 5, 1943.	4.6	4
40	Three Modes of Metal-Enriched Star Formation in the Early Universe. , 2010, , .		1
41	Large-scale Dynamo in a Primordial Accretion Flow: An Interpretation from Hydrodynamic Simulation. Astrophysical Journal, 2021, 909, 37.	4.5	1
42	widgyts: Custom Jupyter Widgets for Interactive Data Exploration with yt. Journal of Open Source Software, 2020, 5, 1774.	4.6	1
43	Three Modes of Metal-Enriched Star Formation at High Redshift. Proceedings of the International Astronomical Union, 2008, 4, 111-115.	0.0	0
44	Population III Binary Formation. , 2010, , .		0
45	Magnetic fields and angular momentum in population III star formation. , 2012, , .		0
46	Turbulence and small scale dynamo action in population III star formation. , 2012, , .		0
47	The imprint of pop III stars on the first galaxies. , 2012, , .		0