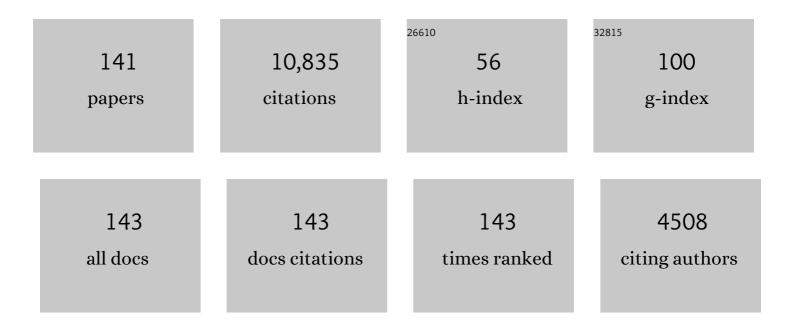
Hubert Klahr

List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Large Binocular Telescope Search for Companions and Substructures in the (Pre)transitional Disk of AB Aurigae. Astrophysical Journal, 2022, 926, 71.	1.6	2
2	Formation of Main Belt Asteroids. , 2022, , 199-211.		3
3	Resilience of Planetesimal Formation in Weakly Reinforced Pressure Bumps. Astrophysical Journal, 2022, 927, 52.	1.6	13
4	Protoplanetary Disk Rings as Sites for Planetesimal Formation. Astronomical Journal, 2021, 161, 96.	1.9	59
5	Linking planetary embryo formation to planetesimal formation. Astronomy and Astrophysics, 2021, 645, A132.	2.1	15
6	Linking planetary embryo formation to planetesimal formation. Astronomy and Astrophysics, 2021, 645, A131.	2.1	17
7	A Two-moment Radiation Hydrodynamics Scheme Applicable to Simulations of Planet Formation in Circumstellar Disks. Astrophysical Journal, 2021, 906, 78.	1.6	9
8	Testing the Jeans, Toomre, and Bonnor–Ebert Concepts for Planetesimal Formation: 3D Streaming-instability Simulations of Diffusion-regulated Formation of Planetesimals. Astrophysical Journal, 2021, 911, 9.	1.6	30
9	The New Generation Planetary Population Synthesis (NGPPS). Astronomy and Astrophysics, 2021, 656, A73.	2.1	28
10	Pebble Trapping in Vortices: Three-dimensional Simulations. Astrophysical Journal, 2021, 913, 92.	1.6	19
11	The New Generation Planetary Population Synthesis (NGPPS). Astronomy and Astrophysics, 2021, 656, A72.	2.1	82
12	The Sandwich Mode for Vertical Shear Instability in Protoplanetary Disks. Astrophysical Journal, 2021, 915, 130.	1.6	24
13	High-resolution parameter study of the vertical shear instability – II: dependence on temperature gradient and cooling time. Monthly Notices of the Royal Astronomical Society, 2021, 508, 5402-5409.	1.6	13
14	The CARMENES search for exoplanets around M dwarfs. Astronomy and Astrophysics, 2021, 653, A114.	2.1	67
15	The New Generation Planetary Population Synthesis (NGPPS). Astronomy and Astrophysics, 2021, 656, A71.	2.1	45
16	Global axisymmetric simulations of photoevaporation and magnetically driven protoplanetary disk winds. Astronomy and Astrophysics, 2020, 633, A21.	2.1	18
17	High resolution parameter study of the vertical shear instability. Monthly Notices of the Royal Astronomical Society, 2020, 499, 1841-1853.	1.6	27
18	Requirements for Gravitational Collapse in Planetesimal Formation—The Impact of Scales Set by Kelvin–Helmholtz and Nonlinear Streaming Instability. Astrophysical Journal, 2020, 895, 91.	1.6	43

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19	Constraining the parameter space for the solar nebula. Astronomy and Astrophysics, 2020, 640, A61.	2.1	18
20	VLT/SPHERE survey for exoplanets around young early-type stars, including systems with multi-belt architectures. Astronomy and Astrophysics, 2020, 639, A54.	2.1	3
21	The CARMENES search for exoplanets around M dwarfs. Astronomy and Astrophysics, 2020, 644, A127.	2.1	27
22	Effect of pebble flux-regulated planetesimal formation on giant planet formation. Astronomy and Astrophysics, 2020, 642, A75.	2.1	29
23	A Highly Eccentric Warm Jupiter Orbiting TIC 237913194. Astronomical Journal, 2020, 160, 275.	1.9	19
24	Gas and Dust Dynamics in Starlight-heated Protoplanetary Disks. Astrophysical Journal, 2020, 897, 155.	1.6	54
25	Turbulence Sets the Length Scale for Planetesimal Formation: Local 2D Simulations of Streaming Instability and Planetesimal Formation. Astrophysical Journal, 2020, 901, 54.	1.6	69
26	Planetary system around the nearby M dwarf GJ 357 including a transiting, hot, Earth-sized planet optimal for atmospheric characterization. Astronomy and Astrophysics, 2019, 628, A39.	2.1	97
27	The CARMENES search for exoplanets around M dwarfs. Astronomy and Astrophysics, 2019, 627, A49.	2.1	95
28	The DSHARP Rings: Evidence of Ongoing Planetesimal Formation?. Astrophysical Journal Letters, 2019, 884, L5.	3.0	57
29	The Concentration and Growth of Solids in Fragmenting Circumstellar Disks. Astrophysical Journal, 2019, 881, 162.	1.6	13
30	A giant exoplanet orbiting a very-low-mass star challenges planet formation models. Science, 2019, 365, 1441-1445.	6.0	78
31	Dense Particle Clouds in Laboratory Experiments in Context of Drafting and Streaming Instability. Astrophysical Journal, 2019, 872, 3.	1.6	12
32	Mapping the Conditions for Hydrodynamic Instability on Steady-State Accretion Models of Protoplanetary Disks. Astrophysical Journal, 2019, 871, 150.	1.6	52
33	Planetesimal Population Synthesis: Pebble Flux-regulated Planetesimal Formation. Astrophysical Journal, 2019, 874, 36.	1.6	68
34	Linking planetesimal and dust content in protoplanetary disks via a local toy model. Astronomy and Astrophysics, 2019, 629, A116.	2.1	19
35	Highly structured disk around the planet host PDS 70 revealed by high-angular resolution observations with ALMA. Astronomy and Astrophysics, 2019, 625, A118.	2.1	90
36	First scattered light detection of a nearly edge-on transition disk around the T Tauri star RY Lupi. Astronomy and Astrophysics, 2018, 614, A88.	2.1	26

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37	The GJ 504 system revisited. Astronomy and Astrophysics, 2018, 618, A63.	2.1	45
38	Instabilities and Flow Structures in Protoplanetary Disks: Setting the Stage for Planetesimal Formation. , 2018, , 2251-2286.		8
39	VLT/SPHERE astrometric confirmation and orbital analysis of the brown dwarf companion HR 2562 B. Astronomy and Astrophysics, 2018, 615, A177.	2.1	13
40	Instabilities and Flow Structures in Protoplanetary Disks: Setting the Stage for Planetesimal Formation. , 2018, , 1-36.		3
41	Vortex formation and survival in protoplanetary discs subject to vertical shear instability. Monthly Notices of the Royal Astronomical Society, 2018, 480, 2125-2136.	1.6	41
42	Azimuthal and Vertical Streaming Instability at High Dust-to-gas Ratios and on the Scales of Planetesimal Formation. Astrophysical Journal, 2018, 861, 47.	1.6	35
43	Discovery of a brown dwarf companion to the star HIP 64892. Astronomy and Astrophysics, 2018, 615, A160.	2.1	26
44	CARMENES: high-resolution spectra and precise radial velocities in the red and infrared. , 2018, , .		37
45	Pebble-trapping Backreaction Does Not Destroy Vortices. Research Notes of the AAS, 2018, 2, 195.	0.3	21
46	The Planetary Accretion Shock. I. Framework for Radiation-hydrodynamical Simulations and First Results. Astrophysical Journal, 2017, 836, 221.	1.6	72
47	The Fragmentation Criteria in Local Vertically Stratified Self-gravitating Disk Simulations. Astrophysical Journal, 2017, 848, 40.	1.6	42
48	Efficiency of thermal relaxation by radiative processes in protoplanetary discs: constraints on hydrodynamic turbulence. Astronomy and Astrophysics, 2017, 605, A30.	2.1	47
49	Gaps, rings, and non-axisymmetric structures in protoplanetary disks: Emission from large grains. Astronomy and Astrophysics, 2016, 590, A17.	2.1	77
50	THE VLA VIEW OF THE HL TAU DISK: DISK MASS, GRAIN EVOLUTION, AND EARLY PLANET FORMATION. Astrophysical Journal Letters, 2016, 821, L16.	3.0	111
51	Linking the Origin of Asteroids to Planetesimal Formation in the Solar Nebula. Proceedings of the International Astronomical Union, 2015, 10, 1-8.	0.0	10
52	VORTEX FORMATION AND EVOLUTION IN PLANET HARBORING DISKS UNDER THERMAL RELAXATION. Astrophysical Journal, 2015, 810, 94.	1.6	17
53	Tracing planet-induced structures in circumstellar disks using molecular lines. Astronomy and Astrophysics, 2015, 579, A105.	2.1	29
54	The Effect of Convective Overstability on Planet Disk Interactions. Proceedings of the International Astronomical Union, 2015, 11, 19-26.	0.0	0

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55	Gaps, rings, and non-axisymmetric structures in protoplanetary disks. Astronomy and Astrophysics, 2015, 574, A68.	2.1	303
56	THE ROLE OF THE COOLING PRESCRIPTION FOR DISK FRAGMENTATION: NUMERICAL CONVERGENCE AND CRITICAL COOLING PARAMETER IN SELF-GRAVITATING DISKS. Astrophysical Journal, 2015, 814, 155.	1.6	17
57	PARTICLE TRAPPING AND STREAMING INSTABILITY IN VORTICES IN PROTOPLANETARY DISKS. Astrophysical Journal, 2015, 804, 35.	1.6	81
58	Impacts of planet migration models on planetary populations. Astronomy and Astrophysics, 2014, 567, A121.	2.1	86
59	Planet-induced disk structures: A comparison between (sub)mm and infrared radiation. Astronomy and Astrophysics, 2014, 572, L2.	2.1	11
60	Mean gas opacity for circumstellar environments and equilibrium temperature degeneracy. Astronomy and Astrophysics, 2014, 568, A91.	2.1	30
61	CONVECTIVE OVERSTABILITY IN RADIALLY STRATIFIED ACCRETION DISKS UNDER THERMAL RELAXATION. Astrophysical Journal, 2014, 788, 21.	1.6	108
62	Characterization of the gaseous companion <i>l²</i> Andromedae b. Astronomy and Astrophysics, 2014, 562, A111.	2.1	44
63	SPOTS: The Search for Planets Orbiting Two Stars. Astronomy and Astrophysics, 2014, 572, A91.	2.1	25
64	A Solution to the Radiation Pressure Problem in the Formation of Massive Stars. Thirty Years of Astronomical Discovery With UKIRT, 2014, , 379-383.	0.3	1
65	Grain opacity and the bulk composition of extrasolar planets. Astronomy and Astrophysics, 2014, 566, A141.	2.1	70
66	DISCOVERY OF A PROBABLE 4-5 JUPITER-MASS EXOPLANET TO HD 95086 BY DIRECT IMAGING. Astrophysical Journal Letters, 2013, 772, L15.	3.0	196
67	A PARAMETER STUDY FOR BAROCLINIC VORTEX AMPLIFICATION. Astrophysical Journal, 2013, 765, 115.	1.6	73
68	ACCRETION OF GAS ONTO GAP-OPENING PLANETS AND CIRCUMPLANETARY FLOW STRUCTURE IN MAGNETIZED TURBULENT DISKS. Astrophysical Journal, 2013, 769, 97.	1.6	35
69	A survey of young, nearby, and dusty stars conducted to understand the formation of wide-orbit giant planets. Astronomy and Astrophysics, 2013, 553, A60.	2.1	79
70	Properties of the young gas giant planet β Pictoris b. Proceedings of the International Astronomical Union, 2013, 8, 241-246.	0.0	0
71	Tracing Planets in Circumstellar Discs. EPJ Web of Conferences, 2013, 46, 02003.	0.1	0
72	Disk Weather. EPJ Web of Conferences, 2013, 46, 04001.	0.1	3

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73	Tracing large-scale structures in circumstellar disks with ALMA. Astronomy and Astrophysics, 2013, 549, A97.	2.1	31
74	GRAVOTURBULENT PLANETESIMAL FORMATION: THE POSITIVE EFFECT OF LONG-LIVED ZONAL FLOWS. Astrophysical Journal, 2013, 763, 117.	1.6	107
75	Planetesimal Formation in Zonal Flows Arising in Magneto-Rotationally-Unstable Protoplanetary Disks. Proceedings of the International Astronomical Union, 2012, 8, 244-249.	0.0	0
76	Characterization of exoplanets from their formation. Astronomy and Astrophysics, 2012, 547, A112.	2.1	209
77	LARGE-SCALE AZIMUTHAL STRUCTURES OF TURBULENCE IN ACCRETION DISKS: DYNAMO TRIGGERED VARIABILITY OF ACCRETION. Astrophysical Journal, 2012, 744, 144.	1.6	41
78	HOW DO MOST PLANETS FORM?—CONSTRAINTS ON DISK INSTABILITY FROM DIRECT IMAGING. Astrophysical Journal, 2012, 745, 4.	1.6	46
79	A simple model for the evolution of the dust population in protoplanetary disks. Astronomy and Astrophysics, 2012, 539, A148.	2.1	555
80	TURBULENCE IN WEAKLY IONIZED PROTOPLANETARY DISKS. Astrophysical Journal, 2012, 761, 95.	1.6	69
81	On the stability of radiation-pressure-dominated cavities. Astronomy and Astrophysics, 2012, 537, A122.	2.1	67
82	Characterization of exoplanets from their formation. Astronomy and Astrophysics, 2012, 547, A111.	2.1	228
83	Extrasolar planet population synthesis. Astronomy and Astrophysics, 2012, 541, A97.	2.1	250
84	High-resolution simulations of planetesimal formation in turbulent protoplanetary discs. Astronomy and Astrophysics, 2011, 529, A62.	2.1	105
85	Theory of planet formation and comparison with observation. EPJ Web of Conferences, 2011, 11, 04001.	0.1	28
86	The baroclinic instability in the context of layered accretion. Astronomy and Astrophysics, 2011, 527, A138.	2.1	80
87	THREE-DIMENSIONAL SIMULATION OF MASSIVE STAR FORMATION IN THE DISK ACCRETION SCENARIO. Astrophysical Journal, 2011, 732, 20.	1.6	160
88	TURBULENCE AND STEADY FLOWS IN THREE-DIMENSIONAL GLOBAL STRATIFIED MAGNETOHYDRODYNAMIC SIMULATIONS OF ACCRETION DISKS. Astrophysical Journal, 2011, 735, 122.	1.6	114
89	HIGH-CONTRAST IMAGING SEARCH FOR PLANETS AND BROWN DWARFS AROUND THE MOST MASSIVE STARS IN THE SOLAR NEIGHBORHOOD. Astrophysical Journal, 2011, 736, 89.	1.6	95
90	DISKS AROUND BROWN DWARFS IN THE EJECTION SCENARIO. I. DISK COLLISIONS IN TRIPLE SYSTEMS. Astrophysical Journal, 2011, 743, 106.	1.6	28

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91	THREE-DIMENSIONAL MAGNETOHYDRODYNAMIC SIMULATIONS OF PLANET MIGRATION IN TURBULENT STRATIFIED DISKS. Astrophysical Journal, 2011, 736, 85.	1.6	98
92	Planetesimal Formation Through Streaming and Gravitational Instabilities. Earth, Moon and Planets, 2011, 108, 39-43.	0.3	37
93	Theory of planet formation and comparison with observation. EPJ Web of Conferences, 2011, 11, 04001.	0.1	1
94	Application of recent results on the orbital migration of low mass planets: convergence zones. Proceedings of the International Astronomical Union, 2010, 6, 72-75.	0.0	4
95	3D MHD simulations of planet migration in turbulent stratified disks. Proceedings of the International Astronomical Union, 2010, 6, 515-516.	0.0	0
96	The role of accretion disks in the formation of massive stars. Proceedings of the International Astronomical Union, 2010, 6, 215-218.	0.0	1
97	High-resolution simulations of planetesimal formation in turbulent protoplanetary discs. Proceedings of the International Astronomical Union, 2010, 6, 89-94.	0.0	0
98	3D global simulations of proto-planetary disk with dynamically evolving outer edge of dead zone. Proceedings of the International Astronomical Union, 2010, 6, 407-408.	0.0	0
99	Long-term stability of the dead-zone in proto-planetary disks. Proceedings of the International Astronomical Union, 2010, 6, 418-419.	0.0	0
100	High-order Godunov schemes for global 3D MHD simulations of accretion disks. Astronomy and Astrophysics, 2010, 516, A26.	2.1	35
101	CIRCUMVENTING THE RADIATION PRESSURE BARRIER IN THE FORMATION OF MASSIVE STARS VIA DISK ACCRETION. Astrophysical Journal, 2010, 722, 1556-1576.	1.6	205
102	Trapping solids at the inner edge of the dead zone: 3-D global MHD simulations. Astronomy and Astrophysics, 2010, 515, A70.	2.1	126
103	The effect of gas drag on the growth of protoplanets. Astronomy and Astrophysics, 2010, 520, A43.	2.1	450
104	Hydrodynamic Studies of Turbulent AGN Tori. EAS Publications Series, 2010, 44, 69-72.	0.3	0
105	Fast and accurate frequency-dependent radiation transport for hydrodynamics simulations in massive star formation. Astronomy and Astrophysics, 2010, 511, A81.	2.1	95
106	Planet formation bursts at the borders of the dead zone in 2D numerical simulations of circumstellar disks. Astronomy and Astrophysics, 2009, 497, 869-888.	2.1	141
107	Standing on the shoulders of giants. Astronomy and Astrophysics, 2009, 493, 1125-1139.	2.1	127
108	Planet migration in three-dimensional radiative discs. Astronomy and Astrophysics, 2009, 506, 971-987.	2.1	134

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109	DISCOVERY OF THE COLDEST IMAGED COMPANION OF A SUN-LIKE STAR. Astrophysical Journal, 2009, 707, L123-L127.	1.6	144
110	Aus Staub geboren. Planetenentstehung. Physik in Unserer Zeit, 2009, 40, 20-27.	0.0	0
111	The effect of stellar feedback on the formation and evolution of gas and dust tori in AGN. Monthly Notices of the Royal Astronomical Society, 2009, 393, 759-773.	1.6	61
112	ZONAL FLOWS AND LONG-LIVED AXISYMMETRIC PRESSURE BUMPS IN MAGNETOROTATIONAL TURBULENCE. Astrophysical Journal, 2009, 697, 1269-1289.	1.6	321
113	From boulders to planetary systems. New Astronomy Reviews, 2008, 52, 78-93.	5.2	6
114	Radiative magneto-hydrodynamics in massive star formation and accretion disks. Proceedings of the International Astronomical Union, 2008, 4, 103-104.	0.0	2
115	3D global MHD simulations of a proto-planetary disk: dead zone and large-scale magnetic fields. Proceedings of the International Astronomical Union, 2008, 4, 117-118.	0.0	0
116	Gravoturbulent planetesimal formation. Physica Scripta, 2008, T130, 014018.	1.2	3
117	Science case for 1 mas spectro-imagining in the near-infrared. , 2008, , .		0
118	Global magnetohydrodynamical models of turbulence in protoplanetary disks. Astronomy and Astrophysics, 2008, 479, 883-901.	2.1	65
119	A coagulation-fragmentation model for the turbulent growth andÂdestruction of preplanetesimals. Astronomy and Astrophysics, 2008, 486, 597-611.	2.1	35
120	Embryos grown in the dead zone. Astronomy and Astrophysics, 2008, 491, L41-L44.	2.1	82
121	Rapid planetesimal formation in turbulent circumstellar disks. Nature, 2007, 448, 1022-1025.	13.7	972
122	Survival of the mm-cm size grain population observed in protoplanetary disks. Astronomy and Astrophysics, 2007, 469, 1169-1182.	2.1	107
123	Dust Sedimentation and Selfâ€sustained Kelvinâ€Helmholtz Turbulence in Protoplanetary Disk Midplanes. Astrophysical Journal, 2006, 643, 1219-1232.	1.6	128
124	Gravoturbulent Formation of Planetesimals. Astrophysical Journal, 2006, 636, 1121-1134.	1.6	150
125	Thermal convection in accretion disks. Proceedings of the International Astronomical Union, 2006, 2, 405-416.	0.0	3
126	Formation of Giant Planets by Concurrent Accretion of Solids and Gas inside an Anticyclonic Vortex. Astrophysical Journal, 2006, 639, 432-440.	1.6	88

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127	Turbulent diffusion in protoplanetary discs: the effect of an imposed magnetic field. Monthly Notices of the Royal Astronomical Society: Letters, 2006, 370, L71-L75.	1.2	60
128	Two-Dimensional Models of Layered Protoplanetary Discs II. The Effect of a Residual Viscosity in the Dead Zone. Monthly Notices of the Royal Astronomical Society, 2006, 367, 773-780.	1.6	11
129	A comparative study of disc-planet interaction. Monthly Notices of the Royal Astronomical Society, 2006, 370, 529-558.	1.6	320
130	3D-radiation hydro simulations of disk-planet interactions. Astronomy and Astrophysics, 2006, 445, 747-758.	2.1	98
131	Dust Distribution in Gas Disks. II. Selfâ€induced Ring Formation through a Clumping Instability. Astrophysical Journal, 2005, 632, 1113-1121.	1.6	37
132	Dust Diffusion in Protoplanetary Disks by Magnetorotational Turbulence. Astrophysical Journal, 2005, 634, 1353-1371.	1.6	166
133	Two-dimensional models of layered protoplanetary discs - I. The ring instability. Monthly Notices of the Royal Astronomical Society, 2005, 362, 361-368.	1.6	23
134	Turbulence, Vorticity Generation and Angular Momentum Transport via the Baroclinic Instability in Accretion Disks. Symposium - International Astronomical Union, 2004, 202, 350-352.	0.1	2
135	The Global Baroclinic Instability in Accretion Disks. II. Local Linear Analysis. Astrophysical Journal, 2004, 606, 1070-1082.	1.6	65
136	Turbulence in Accretion Disks: Vorticity Generation and Angular Momentum Transport via the Global Baroclinic Instability. Astrophysical Journal, 2003, 582, 869-892.	1.6	349
137	Large-Scale Vortices in Protoplanetary Disks: On the Observability of Possible Early Stages of Planet Formation. Astrophysical Journal, 2002, 578, L79-L82.	1.6	24
138	Dust Distribution in Gas Disks: A Model for the Ring around HR 4796A. Astrophysical Journal, 2001, 554, 1095-1109.	1.6	48
139	Growth and Form of Planetary Seedlings: Results from a Microgravity Aggregation Experiment. Physical Review Letters, 2000, 85, 2426-2429.	2.9	238
140	The Structure and Appearance of Protostellar Accretion Disks: Limits on Disk Flaring. Astrophysical Journal, 1997, 486, 372-387.	1.6	294
141	Particle-Trapping Eddies in Protoplanetary Accretion Disks. Icarus, 1997, 128, 213-229.	1.1	128