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POSITIONS	<p><b>Professor for Theoretical Astrophysics</b> 02/2017 – now at the Ludwig-Maximilians-Universität München, Germany</p> <p><b>Postdoctoral Researcher</b> 09/2015 – 01/2017 at the Max-Planck-Institute for Astronomy, Heidelberg, Germany Advisor: <i>PD Dr. Hubert Klahr</i></p> <p><b>Research Associate</b> 09/2015 – now at the Harvard-Smithsonian Center for Astrophysics Cambridge, MA, USA</p> <p><b>Postdoctoral Fellow</b> 01/2013 – 08/2015 at the Harvard-Smithsonian Center for Astrophysics Cambridge, MA, USA Advisor: <i>Dr. Sean M. Andrews</i></p> <p><b>Postdoctoral Researcher</b> 07/2011 – 12/2012 at the Excellence Cluster 'Universe', Garching, Germany and at the University Observatory, LMU, Munich, Germany Advisor: <i>Prof. Dr. Barbara Ercolano</i></p> <p><b>Postdoctoral Researcher</b> 10/2010 – 06/2011 at the Max-Planck-Institute for Astronomy, Heidelberg, Germany Advisor: <i>Prof. Dr. Cornelis P. Dullemond</i></p>
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STUDIES	<p><b>Ph.D. Astronomy</b> 09/2007–10/2010 University of Heidelberg &amp; Max-Planck-Institute for Astronomy, Germany Thesis: <i>The Evolution of Gas and Dust in Protoplanetary Accretion Disks</i> Advisor: <i>Prof. Dr. Cornelis P. Dullemond</i> Grade: <i>1.0, magna cum laude</i></p> <p><b>M.S. Physics</b> 08/2006 – 08/2007 State University of New York at Albany, USA Scholarship from the international office of the University of Würzburg Thesis: <i>Bayesian Estimation of the Diffusion Tensor</i> Advisor: <i>Prof. Dr. Kevin H. Knuth</i> GPA: <i>4 of 4</i></p> <p><b>Graduate studies in physics</b> 10/2005 – 07/2006 Julius-Maximilians-Universität, Würzburg, Germany</p>
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	<b>Vordiplom in physics</b>	08/2005
	Julius-Maximilians-Universität, Würzburg, Germany	
	Major: <i>physics</i>	
	Minor: <i>mathematics &amp; chemistry</i>	
	<b>Undergraduate studies</b>	10/2003 – 09/2005
	Julius-Maximilians-Universität, Würzburg, Germany	
COMMUNITY SERVICE	<b>Civilian Service</b>	09/2002 – 09/2003
	Roland Eller environmental center, Hobbach, Germany	
	<i>conducted volunteering work via a “Freiwilliges Ökologisches Jahr”</i>	
SCHOOLING	<b>High School / Abitur</b>	09/1993 – 08/2002
	general qualification for university entrance	
	Hermann-Staudinger-Gymnasium	
	Erlenbach am Main, Germany	
	<b>Elementary School</b>	09/1989 – 08/1993
	Johannes Obernburger Grundschule	
	Obernburg am Main, Germany	
RESEARCH INTERESTS	growth and transport of solids in protoplanetary disks; laboratory studies related to planet formation; meteoritics; structure and evolution of protoplanetary disks; astrophysics and astrochemistry of planet formation; connection to ALMA and SMA observations; Bayesian data analysis and MCMC methods; high performance computing;	
REFEREED PUBLICATIONS	<p>58. Ercolano, Jennings, Rosotti, and <b>Birnstiel</b>: <i>X-ray photoevaporation’s limited success in the formation of planetesimals by the streaming instability</i>, MNRAS (2017), vol. 472, 4117.</p> <p>57. Liu, Henning, Carrasco-González, Chandler, Linz, <b>Birnstiel</b>, van Boekel, Pérez, Flock, Testi, Rodríguez, and Galván-Madrid: <i>The properties of the inner disk around HL Tau: Multi-wavelength modeling of the dust emission</i>, A&amp;A (2017), vol. 607, A74.</p> <p>56. Pohl, Benisty, Pinilla, Ginski, de Boer, Avenhaus, Henning, Zurlo, Boccaletti, Augereau, <b>Birnstiel</b>, Dominik, Facchini, Fedele, Janson, Keppler, Kral, Langlois, Ligi, Maire, Ménard, Meyer, Pinte, Quanz, Sauvage, Sezestre, Stolker, Szulágyi, van Boekel, van der Plas, Villenave, Baruffolo, Baudoz, Le Mignant, Maurel, Ramos, and Weber: <i>The Circumstellar Disk HD 169142: Gas, Dust, and Planets Acting in Concert?</i>, ApJ (2017), vol. 850, 52.</p> <p>55. Ricci, Rome, Pinilla, Facchini, <b>Birnstiel</b>, and Testi: <i>VLA Observations of the Disk around the Young Brown Dwarf 2MASS J044427+2512</i>, ApJ (2017), vol. 846, 19.</p> <p>54. Pinilla, Quiroga-Nuñez, Benisty, Natta, Ricci, Henning, van der Plas, <b>Birnstiel</b>, Testi, and Ward-Duong: <i>Millimeter Spectral Indices and Dust Trapping By Planets in Brown Dwarf Disks</i>, ApJ (2017), vol. 846, 70.</p> <p>53. Facchini, <b>Birnstiel</b>, Bruderer, and van Dishoeck: <i>Different dust and gas radial extents in protoplanetary disks: consistent models of grain growth and CO emission</i>, A&amp;A (2017), vol. 605, A16.</p>	

52. Cridland, Pudritz, **Birnstiel**, Cleeves, and Bergin: *Composition of early planetary atmospheres - II. Coupled Dust and chemical evolution in protoplanetary discs*, MNRAS (2017), vol. 469, 3910.
51. Pinilla, Pohl, Stammerl, and **Birnstiel**: *Dust Density Distribution and Imaging Analysis of Different Ice Lines in Protoplanetary Disks*, ApJ (2017), vol. 845, 68.
50. Tripathi, Andrews, **Birnstiel**, and Wilner: *A millimeter Continuum Size-Luminosity Relationship for Protoplanetary Disks*, ApJ (2017), vol. 845, 44.
49. Stammerl, **Birnstiel**, Panić, Dullemond, and Dominik: *Redistribution of CO at the location of the CO ice line in evolving gas and dust disks*, A&A (2017), vol. 600, A140.
48. Pinilla, Pérez, Andrews, van der Marel, van Dishoeck, Ataiee, Benisty, **Birnstiel**, Juhász, Natta, Ricci, and Testi: *A Multi-wavelength Analysis of Dust and Gas in the SR 24S Transition Disk*, ApJ (2017), vol. 839, 99.
47. Cridland, Pudritz, and **Birnstiel**: *Radial drift of dust in protoplanetary discs: the evolution of ice lines and dead zones*, MNRAS (2017), vol. 465, 3865.
46. Cazzoletti, Ricci, **Birnstiel**, and Lodato: *Testing dust trapping in the circumbinary disk around GG Tauri A*, A&A (2017), vol. 599, A102.
45. Teague, Semenov, Gorti, Guilloteau, Henning, **Birnstiel**, Dutrey, van Boekel, and Chapillon: *A Surface Density Perturbation in the TW Hydrae Disk at 95 au Traced by Molecular Emission*, ApJ (2017), vol. 835, 228.
44. Pinilla, Flock, Ovelar, and **Birnstiel**: *Can dead zones create structures like a transition disk?*, A&A (2016), vol. 596, A81.
43. **Birnstiel**, Fang, and Johansen: *Dust Evolution and the Formation of Planetesimals*, Space Sci. Rev. (2016), vol. 205, 41.
42. Pohl, Kataoka, Pinilla, Dullemond, Henning, and **Birnstiel**: *Investigating dust trapping in transition disks with millimeter-wave polarization*, A&A (2016), vol. 593, A12.
41. Teague, Guilloteau, Semenov, Henning, Dutrey, Piétu, **Birnstiel**, Chapillon, Hollenbach, and Gorti: *Measuring turbulence in TW Hydrae with ALMA: methods and limitations*, A&A (2016), vol. 592, A49.
40. de Juan Ovelar, Pinilla, Min, Dominik, and **Birnstiel**: *Constraining turbulence mixing strength in transitional discs with planets using SPHERE and ALMA*, MNRAS (2016), vol. 459, L85.
39. Andrews, Wilner, Zhu, **Birnstiel**, Carpenter, Pérez, Bai, Öberg, Hughes, Isella, and Ricci: *Ringed Substructure and a Gap at 1 au in the Nearest Protoplanetary Disk*, ApJ (2016), vol. 820, L40.
38. Carrasco-González, Henning, Chandler, Linz, Pérez, Rodríguez, Galván-Madrid, Anglada, **Birnstiel**, van Boekel, Flock, Klahr, Macias, Menten, Osorio, Testi, Torrelles, and Zhu: *The VLA View of the HL Tau Disk: Disk Mass, Grain Evolution, and Early Planet Formation*, ApJ (2016), vol. 821, L16.
37. Guilloteau, Piétu, Chapillon, Di Folco, Dutrey, Henning, Semenov, **Birnstiel**, and Grosso: *The shadow of the Flying Saucer: A very low temperature for large dust grains*, A&A (2016), vol. 586, L1.
36. Pinilla, Klarmann, **Birnstiel**, Benisty, Dominik, and Dullemond: *A tunnel and a traffic jam: How transition disks maintain a detectable warm dust component despite the presence of a large planet-carved gap*, A&A (2016), vol. 585, A35.

35. Pinilla, van der Marel, Pérez, van Dishoeck, Andrews, **Birnstiel**, Herczeg, Pontoppidan, and van Kempen: *Testing particle trapping in transition disks with ALMA*, A&A (2015), vol. 584, A16.
34. Pinilla, de Boer, Benisty, Juhász, de Juan Ovelar, Dominik, Avenhaus, **Birnstiel**, Girard, Huelamo, Isella, and Milli: *Variability and dust filtration in the transition disk J160421.7-213028 observed in optical scattered light*, A&A (2015), vol. 584, L4.
33. Banzatti, Pinilla, Ricci, Pontoppidan, **Birnstiel**, and Ciesla: *Direct Imaging of the Water Snow Line at the Time of Planet Formation using Two ALMA Continuum Bands*, ApJ (2015), vol. 815, L15.
32. Piso, Öberg, **Birnstiel**, and Murray-Clay: *C/O and Snowline Locations in Protoplanetary Disks: The Effect of Radial Drift and Viscous Gas Accretion*, ApJ (2015), vol. 815, 109.
31. **Birnstiel**, Andrews, Pinilla, and Kama: *Dust Evolution Can Produce Scattered Light Gaps in Protoplanetary Disks*, ApJ (2015), vol. 813, L14.
30. van der Marel, Pinilla, Tobin, van Kempen, Andrews, Ricci, and **Birnstiel**: *A Concentration of Centimeter-sized Grains in the Ophiuchus IRS 48 Dust Trap*, ApJ (2015), vol. 810, L7.
29. Pinilla, **Birnstiel**, and Walsh: *Sequential planet formation in the HD 100546 protoplanetary disk?*, A&A (2015), vol. 580, A105.
28. Benisty, Juhász, Boccaletti, Avenhaus, Milli, Thalmann, Dominik, Pinilla, Buenzli, Pohl, Beuzit, **Birnstiel**, de Boer, Bonnefoy, Chauvin, Christiaens, Garufi, Grady, Henning, Huelamo, Isella, Langlois, Ménard, Mouillet, Olofsson, Pantin, Pinte, and Pueyo: *Asymmetric features in the protoplanetary disk MWC 758*, A&A (2015), vol. 578, L6.
27. Pinilla, de Juan Ovelar, Ataiee, Benisty, **Birnstiel**, van Dishoeck, and Min: *Gas and dust structures in protoplanetary disks hosting multiple planets*, A&A (2015), vol. 573, A9.
26. Sicilia-Aguilar, Roccatagliata, Getman, Rivière-Marichalar, **Birnstiel**, Merín, Fang, Henning, Eiroa, and Currie: *The Herschel/PACS view of the Cep OB2 region: Global protoplanetary disk evolution and clumpy star formation*, A&A (2015), vol. 573, A19.
25. Walsh, Juhász, Pinilla, Harsono, Mathews, Dent, Hogerheijde, **Birnstiel**, Meeus, Nomura, Aikawa, Millar, and Sandell: *ALMA Hints at the Presence of two Companions in the Disk around HD 100546*, ApJ (2014), vol. 791, L6.
24. Andrews, Chandler, Isella, **Birnstiel**, Rosenfeld, Wilner, Pérez, Ricci, Carpenter, Calvet, Corder, Deller, Dullemond, Greaves, Harris, Henning, Kwon, Lazio, Linz, Mundy, Sargent, Storm, and Testi: *Resolved Multifrequency Radio Observations of GG Tau*, ApJ (2014), vol. 787, 148.
23. Pinilla, Benisty, **Birnstiel**, Ricci, Isella, Natta, Dullemond, Quiroga-Nuñez, Henning, and Testi: *Millimetre spectral indices of transition disks and their relation to the cavity radius*, A&A (2014), vol. 564, A51.
22. Testi, **Birnstiel**, Ricci, Andrews, Blum, Carpenter, Dominik, Isella, Natta, Williams, and Wilner: *Dust Evolution in Protoplanetary Disks*, PPVI (2014).
21. **Birnstiel** and Andrews: *On the Outer Edges of Protoplanetary Dust Disks*, ApJ (2014), vol. 780, 153.
20. de Juan Ovelar, Min, Dominik, Thalmann, Pinilla, Benisty, and **Birnstiel**: *Imaging diagnostics for transitional discs*, A&A (2013), vol. 560, A111.

19. Pinilla, **Birnstiel**, Benisty, Ricci, Natta, Dullemond, Dominik, and Testi: *Explaining millimeter-sized particles in brown dwarf disks*, A&A (2013), vol. 554, A95.
18. van der Marel, van Dishoeck, Bruderer, **Birnstiel**, Pinilla, Dullemond, van Kempen, Schmalzl, Brown, Herczeg, Mathews, and Geers: *A Major Asymmetric Dust Trap in a Transition Disk*, Science (2013), vol. 340, 1199.
17. Akimkin, Zhukovska, Wiebe, Semenov, Pavlyuchenkov, Vasyunin, **Birnstiel**, and Henning: *Protoplanetary Disk Structure with Grain Evolution: The ANDES Model*, ApJ (2013), vol. 766, 8.
16. **Birnstiel**, Dullemond, and Pinilla: *Lopsided dust rings in transition disks*, A&A (2013), vol. 550, L8.
15. Windmark, **Birnstiel**, Ormel, and Dullemond: *Breaking through: the effects of a velocity distribution on barriers to dust growth (Corrigendum)*, A&A (2012), vol. 548, C1.
14. Pinilla, Benisty, and **Birnstiel**: *Ring shaped dust accumulation in transition disks*, A&A (2012), vol. 545, A81.
13. Windmark, **Birnstiel**, Ormel, and Dullemond: *Breaking through: The effects of a velocity distribution on barriers to dust growth*, A&A (2012), vol. 544, L16.
12. **Birnstiel**, Andrews, and Ercolano: *Can grain growth explain transition disks?*, A&A (2012), vol. 544, A79.
11. Windmark, **Birnstiel**, Güttler, Blum, Dullemond, and Henning: *Planetesimal formation by sweep-up: how the bouncing barrier can be beneficial to growth*, A&A (2012), vol. 540, A73.
10. **Birnstiel**, Klahr, and Ercolano: *A simple model for the evolution of the dust population in protoplanetary disks*, A&A (2012), vol. 539, A148.
9. Pinilla, **Birnstiel**, Ricci, Dullemond, Uribe, Testi, and Natta: *Trapping dust particles in the outer regions of protoplanetary disks*, A&A (2012), vol. 538, A114.
8. Andrews, Wilner, Hughes, Qi, Rosenfeld, Öberg, **Birnstiel**, Espaillat, Cieza, Williams, Lin, and Ho: *The TW Hya Disk at 870  $\mu\text{m}$ : Comparison of CO and Dust Radial Structures*, ApJ (2012), vol. 744, 162.
7. Ricci, Testi, Williams, Mann, and **Birnstiel**: *The mm-colors of a Young Binary Disk System in the Orion Nebula Cluster*, ApJ (2011), vol. 739, L8.
6. **Birnstiel**: *The Evolution of Gas and Dust in Protoplanetary Accretion Disks*, PhD Thesis (2011).
5. Vasyunin, Wiebe, **Birnstiel**, Zhukovska, Henning, and Dullemond: *Impact of Grain Evolution on the Chemical Structure of Protoplanetary Disks*, ApJ (2011), vol. 727, 76.
4. **Birnstiel**, Ormel, and Dullemond: *Dust size distributions in coagulation/fragmentation equilibrium: numerical solutions and analytical fits*, A&A (2011), vol. 525, A11.
3. **Birnstiel**, Ricci, Trotta, Dullemond, Natta, Testi, Dominik, Henning, Ormel, and Zsom: *Testing the theory of grain growth and fragmentation by millimeter observations of protoplanetary disks*, A&A (2010), vol. 516, L14.
2. **Birnstiel**, Dullemond, and Brauer: *Gas- and dust evolution in protoplanetary disks*, A&A (2010), vol. 513, A79.
1. **Birnstiel**, Dullemond, and Brauer: *Dust retention in protoplanetary disks*, A&A (2009), vol. 503, L5.

## TALKS

Physics Colloquium	U. of Duisburg, GER	11/2017
StarPlan Seminar	Copenhagen, DEN	10/2017
PPD Gathering	LANL, USA	08/2017
ICS Colloquium, Univ. Zürich	Zürich, SWI	04/2017
Munich Physics Colloquium	Munich, GER	11/2016
Königstuhl Colloquium	Heidelberg, GER	11/2016
Missing links from disks to planets	Budapest, HUN	10/2016
GER-JPN Planet Formation Conference	Ishigaki, JPN	09/2016
Multiple Faces of Interstellar Dust	MPE, Garching, GER	09/2016
Linking Exoplanet and Disk Compositions	STSci, Baltimore, USA	09/2016
Origins of Habitable Planets	Univ. of Gothenburg, SWE	05/2016
Workshop on Young Solar Systems	Sant Cugat, ESP	04/2016
Early Earth Evolution	Cologne University, GER	04/2016
Institute Seminar	Arcetri Observatory, ITA	02/2016
Institute Seminar	Bordeaux, FRA	11/2015
Inv. talk: From clouds to PPDs	Berlin, GER	10/2015
Invited Review: IAU Symposium 314	Atlanta, USA	05/2015
Astrophysics Seminar	IAS Princeton, USA	04/2015
Lorentz Workshop: Transition Disks	Leiden, NLD	03/2015
Inv. review: ISSI Beijing Workshop	Beijing, CHN	08/2014
Inv. review: 7th meeting on Cosmic Dust	Osaka, JPN	08/2014
Astrochemistry Seminar	Leiden Observatory, NLD	01/2014
Inv. colloquium	IPAG, Grenoble, FRA	01/2014
Inv. colloquium	U. at Albany, USA	09/2013
Postdoc Symposium	Harvard-Smiths. CfA, USA	10/2013
Conf: Dust Growth 2013	Heidelberg, GER	07/2013
Inv. review: From Dust to Rocks to Planets	Waiokola, HI, USA	04/2013
Seminar	LANL, Los Alamos, USA	03/2013
Star Formation Seminar	Harvard-Smiths. CfA, USA	03/2013
Excellence Cluster Science Day	Garching, GER	12/2012
Conf.: Instabilities & Structures in PPDs	Marseille, FRA	09/2012
Conf.: Planet Formation & Evolution	Munich, GER	09/2012
ESO SPF meeting	Garching, GER	05/2012
Cluster Colloquium	Universe Cluster, GER	02/2012
Inv. seminar	U. of Hawaii, Honolulu, USA	11/2011
Inv. review: Baroclinic Instability in Disks	Ringberg Castle, GER	06/2011
Inv. colloquium	USM, Munich, GER	05/2011
Group Seminar	U. of Kyoto, JPN	02/2011
Group Seminar	U. of Nagoya, JPN	02/2011
Lab Seminar	ILTS, Sapporo, JPN	02/2011
Conf.: Planet formation and evolution	U. of Göttingen, GER	02/2011
Group Seminar	MPIK, Heidelberg, GER	02/2011
Star & Planet Formation Talk	ESO, Garching, GER	01/2011
ITA Colloquium	U. of Heidelberg, GER	12/2010
Conf.: Planetary Population Synthesis	Ringberg Castle, GER	12/2010
Journal Club Talk	UMich, Ann Arbor, USA	11/2010
JILA Talk	UC Boulder, USA	11/2010
RG Lunch Talk	Harvard-Smiths. CfA, USA	11/2010
MPIA Student Workshop	Norden, GER	05/2010
PSF Seminar	MPIA, Heidelberg, GER	07/2009
DAAD Kickoff Meeting	MPIA, Heidelberg, GER	06/2009
MPIA PSF Retreat	Maulbronn, GER	10/2008
DFG Group Video Seminar	MPIA, Heidelberg, GER	08/2008
Joint Theory Seminar	MPIA, Heidelberg, GER	10/2008

	MPIA PSF Retreat	Jena, GER	10/2007
POSTER CONTRIBUTIONS	224th Meeting of the AAS	Boston, USA	07/2014
	Origins of Stars and their Plan. Systems	Hamilton, CAN	06/2012
	Herschel's View on Star and Plan. Formation	Grenoble, FRA	03/2012
	Formation of the First Solids	Kauai Island, USA	11/2011
	From Circumstellar Disks to Plan. Systems	Garching, GER	11/2009
	Planetesimal Formation	Cambridge, GBR	09/2009
	Planet Formation and Evolution	Tübingen, GER	03/2009
	New Light on Young Stars	Pasadena, USA	10/2008
TEACHING	<ul style="list-style-type: none"> <li>• Co-supervision of students: <ul style="list-style-type: none"> <li><i>Giovanni Rosotti</i> (PhD 05/2015) 2011 – 2014</li> <li><i>Fredrik Windmark</i> (PhD 11/2013) 2010 – 2013</li> <li><i>Paola Pinilla</i> (PhD 07/2013) 2010 – 2013</li> <li><i>Christian Lenz</i> (MS 2015) 2015 – 2016</li> <li><i>Christian Lenz</i> (PhD) 2016 – present <i>Matías Gárate</i> (PhD) 2017 – present</li> </ul> </li> <li>• Teaching of Masters and Bachelors courses at LMU Munich 2017 - now</li> <li>• Master level lecture series 2012, 2017 - now Ludwig-Maximilians Universität Munich, Germany Topic: <i>Formation &amp; Evolution of Planets in Protoplanetary Discs</i></li> <li>• Lecture for "Probestudium Physik" 2017</li> <li>• CAE's Teaching Excellence Workshop for Astronomy 06/2014</li> <li>• Supervision of research internships at Excellence Cluster "Universe" 2012</li> <li>• Physics Lab Course for Medical Students 2010 University of Heidelberg, Germany</li> </ul>		
OTHER ACTIVITIES & ACHIEVEMENTS	<ul style="list-style-type: none"> <li>• Successful ERC Starting Grant Proposal 2016 (~ 1.4 Million €)</li> <li>• A-rated ERC Starting Grant Proposal 2014</li> <li>• Co-author of Chapter in "Protostars &amp; Planets VI", Arizona University Press</li> <li>• Co-organizer of the Munich Physics Colloquium Series (2016-present)</li> <li>• Referee for A&amp;A, MNRAS, ApJ, Icarus, ERC</li> <li>• Co-organizer of Aspen Center of Physics Workshop <i>Unveiling the Physics of Protoplanet Formation: Connecting Theory to Observations</i> (Aspen, 2018)</li> <li>• SOC member of international conference <i>Take a closer look - The innermost region of protoplanetary disks</i> (Garching 2018)</li> <li>• SOC member of international conference <i>Missing links from disks to planets</i> (Budapest 2016)</li> <li>• SOC member &amp; LOC chair of international conference <i>Planet Formation and Evolution 2012</i> (~200 participants)</li> <li>• Organizing Committee of Königstuhl Colloquium Series at the Max-Planck-Institute for Astronomy (2016-2017)</li> </ul>		

- Organizing of RG Department Seminar Series at the Harvard-Smithsonian Center for Astrophysics (2013-2015)
- Webmaster of the MPA Planet and Star Formation department (2008-2011)
- Organizer and co-organizer of several public outreach talks, guided tours, open house activities, . . .
- Author of popular science articles in “Sterne und Weltraum” (german popular science magazine)