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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	<ol style="list-style-type: none"> <li>1. Liu, Henning, Carrasco-González, Chandler, Linz, <b>Birnstiel</b>, van Boekel, Pérez, Flock, Testi, Rodríguez, Galván-Madrid: <i>The properties of the inner disk around HL Tau: multi-wavelength modeling of the dust emission</i>, submitted to A&amp;A.</li> <li>2. Stammler, <b>Birnstiel</b>, Panić, Dullemond, and Dominik: <i>Redistribution of CO at the location of the CO ice line in evolving gas and dust disks</i>, A&amp;A (2017), vol. 600, A140.</li> <li>3. Cridland, Pudritz, and <b>Birnstiel</b>: <i>Radial drift of dust in protoplanetary discs: the evolution of ice lines and dead zones</i>, MNRAS (2017), vol. 465, 3865.</li> <li>4. Cazzoletti, Ricci, <b>Birnstiel</b>, and Lodato: <i>Testing dust trapping in the circumbinary disk around GG Tauri A</i>, A&amp;A (2017), vol. 599, A102.</li> <li>5. Teague, Semenov, Gorti, Guilloteau, Henning, <b>Birnstiel</b>, Dutrey, van Boekel, and Chapillon: <i>A Surface Density Perturbation in the TW Hydrae Disk at 95 au Traced by Molecular Emission</i>, ApJ (2017), vol. 835, 228.</li> <li>6. Pinilla, Flock, Ovelar, and <b>Birnstiel</b>: <i>Can dead zones create structures like a transition disk?</i>, A&amp;A (2016), vol. 596, A81.</li> <li>7. <b>Birnstiel</b>, Fang, and Johansen: <i>Dust Evolution and the Formation of Planetesimals</i>, Space Sci. Rev. (2016), vol. 205, 41.</li> <li>8. Pohl, Kataoka, Pinilla, Dullemond, Henning, and <b>Birnstiel</b>: <i>Investigating dust trapping in transition disks with millimeter-wave polarization</i>, A&amp;A (2016), vol. 593, A12.</li> </ol>	

9. 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.
10. 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.
11. 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.
12. 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.
13. 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.
14. 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.
15. 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.
16. 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.
17. 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.
18. 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.
19. **Birnstiel**, Andrews, Pinilla, and Kama: *Dust Evolution Can Produce Scattered Light Gaps in Protoplanetary Disks*, ApJ (2015), vol. 813, L14.
20. 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.
21. Pinilla, **Birnstiel**, and Walsh: *Sequential planet formation in the HD 100546 protoplanetary disk?*, A&A (2015), vol. 580, A105.
22. 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.
23. 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.

24. 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.
26. 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.
27. 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.
28. **Birnstiel** and Andrews: *On the Outer Edges of Protoplanetary Dust Disks*, ApJ (2014), vol. 780, 153.
29. Testi, **Birnstiel**, Ricci, Andrews, Blum, Carpenter, Dominik, Isella, Natta, Williams, and Wilner: *Dust Evolution in Protoplanetary Disks*, PPVI (2014).
30. de Juan Ovelar, Min, Dominik, Thalmann, Pinilla, Benisty, and **Birnstiel**: *Imaging diagnostics for transitional discs*, A&A (2013), vol. 560, A111.
31. Pinilla, **Birnstiel**, Benisty, Ricci, Natta, Dullemond, Dominik, and Testi: *Explaining millimeter-sized particles in brown dwarf disks*, A&A (2013), vol. 554, A95.
32. 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.
33. Akimkin, Zhukovska, Wiebe, Semenov, Pavlyuchenkov, Vasyunin, **Birnstiel**, and Henning: *Protoplanetary Disk Structure with Grain Evolution: The ANDES Model*, ApJ (2013), vol. 766, 8.
34. **Birnstiel**, Dullemond, and Pinilla: *Lopsided dust rings in transition disks*, A&A (2013), vol. 550, L8.
35. 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.
36. Pinilla, Benisty, and **Birnstiel**: *Ring shaped dust accumulation in transition disks*, A&A (2012), vol. 545, A81.
37. **Birnstiel**, Andrews, and Ercolano: *Can grain growth explain transition disks?*, A&A (2012), vol. 544, A79.
38. Windmark, **Birnstiel**, Ormel, and Dullemond: *Breaking through: The effects of a velocity distribution on barriers to dust growth*, A&A (2012), vol. 544, L16.
39. 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.
40. **Birnstiel**, Klahr, and Ercolano: *A simple model for the evolution of the dust population in protoplanetary disks*, A&A (2012), vol. 539, A148.
41. Pinilla, **Birnstiel**, Ricci, Dullemond, Uribe, Testi, and Natta: *Trapping dust particles in the outer regions of protoplanetary disks*, A&A (2012), vol. 538, A114.

42. Andrews, Wilner, Hughes, Qi, Rosenfeld, Öberg, **Birnstiel**, Espaillat, Cieza, Williams, Lin, and Ho: *The TW Hya Disk at 870  $\mu$ m: Comparison of CO and Dust Radial Structures*, ApJ (2012), vol. 744, 162.
43. 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.
44. **Birnstiel**: *The Evolution of Gas and Dust in Protoplanetary Accretion Disks*, PhD Thesis (2011).
45. Vasyunin, Wiebe, **Birnstiel**, Zhukovska, Henning, and Dullemond: *Impact of Grain Evolution on the Chemical Structure of Protoplanetary Disks*, ApJ (2011), vol. 727, 76.
46. **Birnstiel**, Ormel, and Dullemond: *Dust size distributions in coagulation/fragmentation equilibrium: numerical solutions and analytical fits*, A&A (2011), vol. 525, A11.
47. **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.
48. **Birnstiel**, Dullemond, and Brauer: *Gas- and dust evolution in protoplanetary disks*, A&A (2010), vol. 513, A79.
49. **Birnstiel**, Dullemond, and Brauer: *Dust retention in protoplanetary disks*, A&A (2009), vol. 503, L5.

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TALKS

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	224th Meeting of the AAS	Boston, USA	07/2014
CONTRIBUTIONS	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>• CAE's Teaching Excellence Workshop for Astronomy 06/2014</li> <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</li> </ul> </li> <li>• Master level lecture series 2012 <ul style="list-style-type: none"> <li>Ludwig-Maximilians Universität Munich, Germany</li> <li>Topic: <i>Formation &amp; Evolution of Planets in Protoplanetary Discs</i></li> </ul> </li> <li>• Supervision of research internship: <ul style="list-style-type: none"> <li><i>Amelie Albrecht</i> 2012</li> </ul> </li> <li>• Physics Lab Course for Medical Students 2010 <ul style="list-style-type: none"> <li>University of Heidelberg, Germany</li> </ul> </li> </ul>		

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OTHER  
ACHIEVEMENTS  
& ACTIVITIES

- Successful ERC Starting Grant Proposal 2016 ( $\sim 1.4$  Million €)
- A-rated ERC Starting Grant Proposal 2014
- Co-author of Chapter in “Protostars & Planets VI”, Arizona University Press
- Referee for A&A, MNRAS, ApJ, Icarus
- Organizing Committee of Königstuhl Colloquium Series at the Max-Planck-Institute for Astronomy (2016-present)
- Organizing of RG Department Seminar Series at the Harvard-Smithsonian Center for Astrophysics (2013-2015)
- SOC member & LOC chair of international conference *Planet Formation and Evolution 2012* ( $\sim 200$  participants)
- SOC member of international conference ”Missing links from disks to planets” (Budapest 2016)
- Webmaster of the MPIA Planet and Star Formation department (2008-2011)
- Several public outreach talks, guided tours, open house activities, and popular science articles in “Sterne und Weltraum” (german popular science magazine)
- Co-I of accepted proposals:

Instrument	PI	allocated time, unit	
Herschel PACS/SPIRE	C. Gielen	14.9	h
Herschel PACS	A. Sicilia-Aguilar	23.0	h
APEX/Laboca	V. Roccatagliata	30.0	h
ALMA	S. M. Andrews	1.2	h
	L. Ricci	8.4	h
	P. Pinilla	0.9	h
	N. van der Marel	7.2	h
ALMA (ongoing)	N. van der Marel	C	
	S. M. Andrews	A	
	L. Ricci	C	
EVLA	L. Ricci	23.9	h
	S. M. Andrews	14.5	h
	S. M. Andrews	4.7	h
	L. Ricci	18.9	h
	E. van Dishoeck	8.8	h
	N. van der Marel	8.3	h
	Th. Henning	26.3	h
SPHERE	E. Buenzli	4.0	h
	P. Pinilla	0.8	nights
	M. Benisty	8.0	h
	M. Benisty	2.7	h

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REFERENCES

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