

LARS EGSTRØM KRISTENSEN

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PROFESSIONAL EXPERIENCE

2016–2018: Assistant professor, University of Copenhagen under ERC-Consolidator grant 646908 (PI: Jes Jørgensen)

2012 – 2016: Personal SubMillimeter Array Fellowship at the Harvard-Smithsonian Center for Astrophysics.

2008 – 2012: Postdoctoral researcher at Leiden Observatory with Prof. E.F. van Dishoeck.

2007 – 2008: Three-month postdoc at the Université de Cergy-Pontoise, France.

EDUCATION

2007: Ph.D. in Astrophysics at the Université de Cergy-Pontoise and the Paris Observatory, LERMA. Thesis successfully defended Oct. 19, 2007, Ph.D. obtained Feb. 6, 2009.

2004: M.Sc. in Astronomy at the Department of Physics and Astronomy, University of Aarhus, Denmark.

2001: B.Sc. in Astronomy at the Department of Physics and Astronomy, University of Aarhus, Denmark

TEACHING AND SUPERVISION

Supervision

- Co-supervised two Ph.D. students (Elizabeth Arthur; Copenhagen University, Umut Yildiz; Leiden Observatory), day-to-day supervision of further three Ph.D. students (D. Harsono, A. Karska, I. San Jose-Garcia; Leiden Observatory)
- Supervised eight M.Sc. projects (2004–), incl. one at NBI (M. Jarlbæk Homann, 2018), plus co-supervised another two M.Sc. projects at NBI (G. Perotti, 2017, S. van der Walt, 2018)
- Supervised three 1st year student groups as part of the Termo1 course (NBI/KU, 2017, 2018)

Lecturer

- “The interstellar medium and formation of stars”, 3 x 2hr lectures, 1 x 3hr extended exercise session; developed lectures and exercise session (NBI/KU, 2016, 2017)
- “Radiation Transfer and Molecular Excitation”, a 2hr lecture as part of the M.Sc. Astrochemistry course taught by Prof. van Dishoeck (Leiden Observatory, 2011)
- “Astrophysics and Chemistry”, 3rd year, developed own curriculum (Université de Cergy-Pontoise, 2005, 2006, 2007; taught in English)
- “Physical Chemistry”, 1st year (Université de Cergy-Pontoise, 2005; taught in English)

Teaching assistant

- “Wave mechanics”, 2nd year (Université de Cergy-Pontoise, 2005; taught in English)
- “C programming”, 2nd year (Université de Cergy-Pontoise, 2005, 2006, 2007; taught in English the first two years, and in French the last)

LEADERSHIP EXPERIENCE

- As part of the Herschel Guaranteed Time Key Program “Water in Star-forming regions with Herschel”, I led the subteam focusing on low-mass protostars (2009–2012)
- Successful PI of more than 25 observing proposals at competitive international facilities (e.g., Herschel, ALMA, VLT, JCMT, IRAM, SOFIA, SMA)

GRANTS AND AWARDS

- Villum Young Investigator Program, “Unraveling the complex and prebiotic chemistry of star-forming regions” (2018-2023, 9.4 MDKK)
- US co-I’s to my 2 successful PI *Herschel* applications were awarded app. 65,000\$ (NASA)
- I was co-I on 13 successful *Herschel* proposals which generated a total of 885,000\$ (NASA)
- Personal cash prize (500€) awarded at the Leiden Observatory (2011)
- 3200€ awarded in five travel grants at the Leiden Observatory (2009-2012)

INVITED AND CONFERENCE TALKS, PAST 3 YEARS (NOT INCL. CONTRIBUTED TALKS)

2017: Seminar, Center for Space and Habitability, Bern, Switzerland. “Following the water trail”

2017: Seminar, European Southern Observatory (ESO), Germany. “Water around low-mass protostars”

2017: Seminar, Paris Observatory, France. “Warm and hot gas around low-mass protostars”

2016: Invited review, Interstellar shocks: models, observations, and shocks, Torun, Poland. “1D, 2D, 3D shock models”

2016: Invited review, Water in the Universe: From Clouds to Oceans, ESTEC, Noordwijk. “Water

in Embedded Low-mass Protostars”

2015: Invited review, Division H meeting at the IAU XXIX General Assembly, Honolulu, Hawaii.
“Protostellar outflows”

COMMUNITY SERVICES AND MISCELLANEOUS

- Elected board member of the Instrument Center for Danish Astronomy (<http://ida.au.dk>)
- Member of the Herschel User’s Group (<http://herschel.esac.esa.int/HUG.shtml>), the only advisory group representing the Herschel user community (2010-2012).
- Referee for the main astronomical journals, ApJ, ApJL, MNRAS, and A&A
- Member of the SMA Time Allocation Committee (2014-2015)
- Scientific Organizing Committee, European Week of Astronomy and Space Science, “Astrophysical Jets and Outflows – Synergies from compact objects to protostars”, Prague, Czech Republic, 2017
- Scientific Organizing Committee, “Interstellar shocks: models, observations, and shocks”, Torun, Poland, 2016
- Scientific organizing committee, “High-Resolution Sub-mm Spectroscopy of the Interstellar Medium and Star Forming Regions – From Herschel to ALMA and Beyond”, Zakopane, Poland, 2015
- Local and scientific organizing committee, “Exciting CO in the local and high-redshift Universe”, Leiden, Netherlands, 2012
- Local organizing committee, “Molecules in Space and the Laboratory”, Paris, France, 2007

PUBLICATION SUMMARY

- Total number of peer-reviewed publications from 2003 to date: 111
- h-index: 31 (per Feb 26, 2018 calculated by the NASA Astrophysics Data System).
- g-index: 48 (per Feb 26, 2018, calculated by the NASA Astrophysics Data System).
- Refereed citations: app. 3000 (per Feb 26, 2018, according to the NASA Astrophysics Data System).
- Total number of refereed first-author publications: 17
- Number of student- or postdoc-supervised papers: 16
- A complete list is maintained at http://adsabs.harvard.edu/cgi-bin/nph-abs_connect?library&libname=Lars+E.+Kristensen&libid=51719ddf25

PEER-REVIEWED PUBLICATION RECORD

2018

1. E. Artur de la Villarmois, **L.E. Kristensen**, J.K. Jørgensen, E.A. Bergin, C. Brinch, S. Frimann, D. Harsono, N. Sakai, S. Yamamoto, 2018, "Chemistry of a newly detected circumbinary disk in Ophiuchus", *A&A in press*
2. A. Karska, M.J. Kaufman, **L.E. Kristensen**, E.F. van Dishoeck, G.J. Herczeg, J.C. Mottram, L. Tychoniec, J.E. Lindberg, N.J. Evans II, J.D. Green, Y.-L. Yang, A. Gusdorf, D. Itrich, N. Siódmiak, 2018, "The Herschel-PACS legacy of low-mass protostars: Properties of warm and hot gas and its origin in far-UV illuminated shocks", *ApJSS in press*

2017

3. S.K. Jacobsen, J.K. Jørgensen, M.H.D. van der Wiel, H. Calcutt, T.L. Bourke, C. Brinch, A. Coutens, M.N. Drozdovskaya, **L.E. Kristensen**, H.S.P. Müller, S.F. Wampfler, 2017, "The ALMA-PILS survey: 3D modeling of the envelope, disk and dust filament of IRAS16293–2422", *A&A in press*
4. C.L.H. Hull, J.M. Girart, L. Tychoniec, R. Rao, P.C. Cortés, R. Pokhrel, Q. Zhang, M. Houde, M.M. Dunham, **L.E. Kristensen**, S.-P. Lai, Z.-Y. Li, R.L. Plambeck, 2017, "ALMA observations of Dust Polarization and Molecular Line Emission from the Class 0 Protostellar Source Serpens SMM1", *ApJ*, 847, 92
5. I.W. Stephens, M.M. Dunham, P.C. Myers, R. Pokhrel, S.I. Sadovoy, E.I. Vorobyov, J.J. Tobin, J.E. Pineda, S.S.R. Offner, K.I. Lee, **L.E. Kristensen**, J.K. Jørgensen, A.A. Goodman, T.L. Bourke, H.G. Arce, A.L. Plunkett, 2017, "Alignment between Protostellar Outflows and Filamentary Structure", *ApJ*, 846, 16

6. P. Caselli, L. Bizzocchi, E. Keto, O. Sipilä, M. Tafalla, L. Pagani, **L.E. Kristensen**, F.F.S. van der Tak, C.M. Walmsley, C. Codella, B. Nisini, Y. Aikawa, A. Faure, E.F. van Dishoeck, 2017, “NH₃ (1₀–0₀) in the pre-stellar core L1544”, *A&A*, 603, L1
7. **L. E. Kristensen**, E. F. van Dishoeck, J. C. Mottram, A. Karska, U. A. Yildiz, E. A. Bergin, P. Bjerkeli, S. Cabrit, S. Doty, N. J. Evans, II, A. Gusdorf, D. Harsono, G. J. Herczeg, D. Johnstone, J. K. Jørgensen, T. A. van Kempen, J.-E. Lee, S. Maret, M. Tafalla, R. Visser, and S. F. Wampfler, 2017, “Origin of warm and hot gas emission from low-mass protostars: Herschel-HIFI observations of CO J=16-15. I. Line profiles, physical conditions, and H₂O abundance”, *A&A*, 605, 93
8. **L. E. Kristensen**, A. Gusdorf, J.C. Mottram, A. Karska, R. Visser, H. Wiesemeyer, R. Güsten, and R. Simon, 2017, “Oxygen budget in low-mass protostars: the NGC 1333-IRAS4A R1 shock observed in [O I] at 63 μm with SOFIA-GREAT”, *A&A*, 601, L4
9. J.C. Mottram, E.F. van Dishoeck, **L.E. Kristensen**, A. Karska, I. SanJosé-García, S. Khanna, G. J. Herczeg, P. André, S. Bontemps, S. Cabrit, M. T. Carney, M. N. Drozdovskaya, M. M. Dunham, N. J. Evans, D. Fedele, J. D. Green, D. Harsono, D. Johnstone, J. K. Jørgensen, V. Könyves, B. Nisini, M. V. Persson, M. Tafalla, R. Visser, and U. A. Yildiz, 2017, “Outflows, infall and evolution of a sample of embedded low-mass protostars. The William Herschel Line Legacy (WILL) survey”, *A&A*, 600, A99
10. S. Frimann, J. K. Jørgensen, M. M. Dunham, T. L. Bourke, **L. E. Kristensen**, S. S. R. Offner, I. W. Stephens, J. J. Tobin, and E. I. Vorobyov, 2017, “Protostellar accretion traced with chemistry. High resolution C¹⁸O and continuum observations towards deeply embedded protostars in Perseus”, *A&A*, 602, 120
11. A. Gusdorf, S. Anderl, B. Lefloch, S. Leurini, H. Wiesemeyer, R. Güsten, M. Benedettini, C. Codella, B. Godard, A. I. Gómez-Ruiz, K. Jacobs, **L. E. Kristensen**, P. Lesaffre, G. Pineau des Forêts, and D. C. Lis, 2017, “Nature of shocks revealed by SOFIA OI observations in the Cepheus E protostellar outflow”, *A&A*, 602, A8
12. S. Aalto, S. Muller, F. Costagliola, K. Sakamoto, J. S. Gallagher, N. Falstad, S. König, K. Dasyra, K. Wada, F. Combes, S. García-Burillo, **L. E. Kristensen**, S. Martín, P. van der Werf, A. S. Evans, and J. Kotilainen, 2017, “Luminous, pc-scale CO 6-5 emission in the obscured nucleus of NGC1377”, *A&A*, 608, 22

2016

13. C. L. H. Hull, J. M. Girart, **L. E. Kristensen**, M. M. Dunham, A. Rodríguez-Kamenetzky, C. Carrasco-González, P. C. Cortés, Z.-Y. Li, and R. L. Plambeck, 2016, “An Extremely High Velocity Molecular Jet Surrounded by an Ionized Cavity in the Protostellar Source Serpens SMM1”, *ApJL*, 823, L27

14. V. N. Salinas, M. R. Hogerheijde, E. A. Bergin, L. I. Cleeves, C. Brinch, G. A. Blake, D. C. Lis, G. J. Melnick, O. Panić, J. C. Pearson, **L. Kristensen**, U. A. Yıldız, and E. F. van Dishoeck, 2016, “First detection of gas-phase ammonia in a planet-forming disk. NH_3 , N_2H^+ , and H_2O in the disk around TW Hydrae”, *A&A*, 591, A122
15. M. A. Thompson, P. Scicluna, F. Kemper, J. E. Geach, M. M. Dunham, O. Morata, S. Ertel, P. T. P. Ho, J. Dempsey, I. Coulson, G. Petitpas, and **L. E. Kristensen**, 2016, “Constraints on the circumstellar dust around KIC 8462852”, *MNRAS*, 458, L39
16. **L.E. Kristensen**, J. M. Brown, D. Wilner, and C. Salyk, 2016, “Velocity-resolved Hot Water Emission Detected toward HL Tau with the Submillimeter Array”, *ApJL*, 822, L20
17. A. O. Benz, S. Bruderer, E. F. van Dishoeck, M. Melchior, S. F. Wampfler, F. van der Tak, J. R. Goicoechea, N. Indriolo, **L. E. Kristensen**, D. C. Lis, J. C. Mottram, E. A. Bergin, P. Caselli, F. Herpin, M. R. Hogerheijde, D. Johnstone, R. Liseau, B. Nisini, M. Tafalla, R. Visser, and F. Wyrowski, 2016, “Water in star-forming regions with Herschel (WISH). VI. Constraints on UV and X-ray irradiation from a survey of hydrides in low- to high-mass young stellar objects”, *A&A*, 590, A105
18. S. Aalto, F. Costagliola, S. Müller, K. Sakamoto, J. S. Gallagher, K. Dasyra, K. Wada, F. Combes, S. García-Burillo, **L. E. Kristensen**, S. Martín, P. van der Werf, A. S. Evans, and J. Kotilainen, 2016, “A precessing molecular jet signaling an obscured, growing supermassive black hole in NGC 1377?”, *A&A*, 590, A73
19. M. Kama, S. Bruderer, M. Carney, M. Hogerheijde, E.F. van Dishoeck, D. Fedele, A. Baryshev, W. Boland, R. Güsten, A. Aikutalp, Y. Choi, A. Endo, W. Frieswijk, A. Karska, P. Klaassen, E. Koumpia, **L. Kristensen**, S. Leurini, Z. Nagy, J.-P. Pérez-Beaupuits, C. Risacher, N. van der Marel, T. A. van Kempen, R. J. van Weeren, F. Wyrowski, and U. A. Yıldız, 2016, “Observations and modelling of CO and [C I] in protoplanetary disks. First detections of [C I] and constraints on the carbon abundance”, *A&A*, 588, A108
20. K. I. Lee, M. M. Dunham, P. C. Myers, H. G. Arce, T. L. Bourke, A. A. Goodman, J. K. Jørgensen, **L. E. Kristensen**, S. S. R. Offner, J. E. Pineda, J. J. Tobin, and E. I. Vorobyov, 2016, “Misalignment of Outflow Axes in the Proto-multiple Systems in Perseus”, *ApJL*, 820, L2
21. F. Herpin, L. Chavarría, T. Jacq, J. Braine, F. van der Tak, F. Wyrowski, E. F. van Dishoeck, A. Baudry, S. Bontemps, **L. Kristensen**, M. Schmalzl, and J. Mata, 2016, “Herschel-HIFI view of mid-IR quiet massive protostellar objects”, *A&A*, 587, A139
22. T.A. van Kempen, M.R. Hogerheijde, E.F. van Dishoeck, **L.E. Kristensen**, A. Belloche, P.D. Klaassen, S. Leurini, I. San Jose-Garcia, A. Aykutalp, Y. Choi, A. Endo, W. Frieswijk, D. Harsono, A. Karska, E. Koumpia, N. van der Marel, Z. Nagy, J.-P. Pérez-Beaupuits, C. Risacher, R. J. van Weeren, F. Wyrowski, U. A. Yıldız, R. Güsten, W. Boland, and A. Baryshev, 2016, “Outflow forces in intermediate-mass star formation”, *A&A*, 587, A17

23. I. San José-García, J. C. Mottram, E. F. van Dishoeck, **L. E. Kristensen**, F. F. S. van der Tak, J. Braine, F. Herpin, D. Johnstone, T. A. van Kempen, and F. Wyrowski, 2016, “Linking low-to high-mass young stellar objects with Herschel-HIFI observations of water”, *A&A*, 585, A103
24. A. Gusdorf, R. Güsten, K.M. Menten, D.R. Flower, G. Pineau des Forêts, C. Codella, T. Csengeri, A. I. Gómez-Ruiz, S. Heyminck, K. Jacobs, **L. E. Kristensen**, S. Leurini, M. A. Requena-Torres, S. F. Wampfler, H. Wiesemeyer, and F. Wyrowski, 2016, “Challenging shock models with SOFIA OH observations in the high-mass star-forming region Cepheus A”, *A&A*, 585, A45

2015

25. K. I. Lee, M. M. Dunham, P. C. Myers, J. J. Tobin, **L. E. Kristensen**, J. E. Pineda, E. I. Vorobyov, S. S. R. Offner, H. G. Arce, Z.-Y. Li, T. L. Bourke, J. K. Jørgensen, A. A. Goodman, S. I. Sadavoy, C. J. Chandler, R. J. Harris, K. Kratter, L. W. Looney, C. Melis, L. M. Perez, and D. Segura-Cox, 2015, “Mass Assembly of Stellar Systems and Their Evolution with the SMA (MASSES). Multiplicity and the Physical Environment in L1448N”, *ApJ*, 814, 114
26. **L. E. Kristensen** and E. A. Bergin, 2015, “Tracing Embedded Stellar Populations in Clusters and Galaxies Using Molecular Emission: Methanol as a Signature of the Low-mass End of the IMF”, *ApJL*, 807, L25
27. M. Matuszak, A. Karska, **L. E. Kristensen**, G. J. Herczeg, Ł. Tychoniec, T. A. van Kempen, and A. Fuente, 2015, “Far-infrared CO and H₂O emission in intermediate-mass proto-stars”, *A&A*, 578, A20
28. U. A. Yıldız, **L. E. Kristensen**, E. F. van Dishoeck, M. R. Hogerheijde, A. Karska, A. Belloche, A. Endo, W. Frieswijk, R. Güsten, T. A. van Kempen, S. Leurini, Z. Nagy, J. P. Pérez-Beaupuits, C. Risacher, N. van der Marel, R. J. van Weeren, and F. Wyrowski, 2015, “APEX-CHAMP⁺ high-J CO observations of low-mass young stellar objects. IV. Mechanical and radiative feedback”, *A&A*, 576, A109
29. B. Nisini, G. Santangelo, T. Giannini, S. Antonucci, S. Cabrit, C. Codella, C. J. Davis, J. Eislöffel, **L. Kristensen**, G. Herczeg, D. Neufeld, and E. F. van Dishoeck, 2015, “[O I] 63 μm Jets in Class 0 Sources Detected by Herschel”, *ApJ*, 801, 121
30. A. Gusdorf, D. Riquelme, S. Anderl, J. Eislöffel, C. Codella, A. I. Gómez-Ruiz, U. U. Graf, **L. E. Kristensen**, S. Leurini, B. Parise, M. A. Requena-Torres, O. Ricken, and R. Güsten, 2015, “Impacts of pure shocks in the BHR71 bipolar outflow”, *A&A*, 575, A98

2014

31. M. Schmalzl, R. Visser, C. Walsh, T. Albertsson, E. F. van Dishoeck, **L. E. Kristensen**, and J. C. Mottram, 2014, “Water in low-mass star-forming regions with Herschel. The link between water gas and ice in protostellar envelopes”, *A&A*, 572, A81
32. J. C. Mottram, **L. E. Kristensen**, E. F. van Dishoeck, S. Bruderer, I. San José-García, A. Karska, R. Visser, G. Santangelo, A. O. Benz, E. A. Bergin, P. Caselli, F. Herpin, M. R. Hogerheijde, D. Johnstone, T. A. van Kempen, R. Liseau, B. Nisini, M. Tafalla, F. F. S. van der Tak, and F. Wyrowski, 2014, “Water in star-forming regions with Herschel (WISH). V. The physical conditions in low-mass protostellar outflows revealed by multi-transition water observations”, *A&A*, 572, A21
33. A. Karska, **L. E. Kristensen**, E. F. van Dishoeck, M. N. Drozdovskaya, J. C. Mottram, G. J. Herczeg, S. Bruderer, S. Cabrit, N. J. Evans, D. Fedele, A. Gusdorf, J. K. Jørgensen, M. J. Kaufman, G. J. Melnick, D. A. Neufeld, B. Nisini, G. Santangelo, M. Tafalla, and S. F. Wampfler, 2014, “Shockingly low water abundances in Herschel/PACS observations of low-mass protostars in Perseus”, *A&A*, 572, A9
34. P. Bjerkeli, R. Liseau, C. Brinch, G. Olofsson, G. Santangelo, S. Cabrit, M. Benedettini, J. H. Black, G. Herczeg, K. Justtanont, **L. E. Kristensen**, B. Larsson, B. Nisini, and M. Tafalla, 2014, “Resolving the shocked gas in HH 54 with Herschel. CO line mapping at high spatial and spectral resolution”, *A&A*, 571, A90
35. G. Santangelo, B. Nisini, C. Codella, A. Lorenzani, U. A. Yıldız, S. Antonucci, P. Bjerkeli, S. Cabrit, T. Giannini, **L. E. Kristensen**, R. Liseau, J. C. Mottram, M. Tafalla, and E. F. van Dishoeck, 2014, “Water distribution in shocked regions of the NGC 1333-IRAS 4A protostellar outflow”, *A&A*, 568, A125
36. A. N. Suutarinen, **L. E. Kristensen**, J. C. Mottram, H. J. Fraser, and E. F. van Dishoeck, 2014, “Water and methanol in low-mass protostellar outflows: gas-phase synthesis, ice sputtering and destruction”, *MNRAS*, 440, 1844
37. V. Agra-Amboage, S. Cabrit, C. Dougados, **L. E. Kristensen**, L. Ibgui, and J. Reunanen, 2014, “Origin of the wide-angle hot H₂ in DG Tauri. New insight from SINFONI spectro-imaging”, *A&A*, 564, A11
38. D. A. Neufeld, A. Gusdorf, R. Güsten, G. J. Herczeg, **L. Kristensen**, G. J. Melnick, B. Nisini, V. Ossenkopf, M. Tafalla, and E. F. van Dishoeck, 2014, “The Water Abundance behind Interstellar Shocks: Results from Herschel/PACS and Spitzer/IRS Observations of H₂O, CO, and H₂”, *ApJ*, 781, 102

2013

39. A. Coutens, C. Vastel, S. Cabrit, C. Codella, **L. E. Kristensen**, C. Ceccarelli, E. F. van Dishoeck, A. C. A. Boogert, S. Bottinelli, A. Castets, E. Caux, C. Comito, K. Demyk, F. Herpin, B. Lefloch, C. McCoey, J. C. Mottram, B. Parise, V. Taquet, F. F. S. van der Tak, R. Visser, and U. A.

- Yildiz, 2013, “Deuterated water in the solar-type protostars NGC 1333 IRAS 4A and IRAS 4B”, *A&A*, 560, A39
40. J. Lee, J.-E. Lee, S. Lee, J. D. Green, N. J. Evans, II, M. Choi, **L. Kristensen**, O. Dionatos, J. K. Jørgensen, and the DIGIT Team, 2013, “L1448-MM Observations by the Herschel Key Program, “Dust, Ice, and Gas In Time” (DIGIT)”, *ApJS*, 209, 4
41. J. C. Mottram, E. F. van Dishoeck, M. Schmalzl, **L. E. Kristensen**, R. Visser, M. R. Hogerheijde, and S. Bruderer, 2013, “Waterfalls around protostars. Infall motions towards Class 0/I envelopes as probed by water”, *A&A*, 558, A126
42. O. Dionatos, J. K. Jørgensen, J. D. Green, G. J. Herczeg, N. J. Evans, **L. E. Kristensen**, J. E. Lindberg, and E. F. van Dishoeck, 2013, “Dust, ice and gas in time (DIGIT): Herschel and Spitzer spectro-imaging of SMM3 and SMM4 in Serpens”, *A&A*, 558, A88
43. U.A. Yildiz, K. Acharyya, P.F. Goldsmith, E.F. vanDishoeck, G. Melnick, R. Snell, R. Liseau, J.-H. Chen, L. Pagani, E. Bergin, P. Caselli, E. Herbst, **L. E. Kristensen**, R. Visser, D. C. Lis, and M. Gerin, 2013, “Deep observations of O₂ toward a low-mass protostar with Herschel-HIFI”, *A&A*, 558, A58
44. **L. E. Kristensen**, E. F. van Dishoeck, A. O. Benz, S. Bruderer, R. Visser, and S. F. Wampfler, 2013, “Observational evidence for dissociative shocks in the inner 100 AU of low-mass protostars using Herschel-HIFI”, *A&A*, 557, A23
45. U.A. Yildiz, **L.E. Kristensen**, E.F. van Dishoeck, I. San José-García, A. Karska, D. Harsono, M. Tafalla, A. Fuente, R. Visser, J. K. Jørgensen, and M. R. Hogerheijde, 2013, “High-J CO survey of low-mass protostars observed with Herschel-HIFI”, *A&A*, 556, A89
46. N. van der Marel, **L. E. Kristensen**, R. Visser, J. C. Mottram, U. A. Yildiz, and E. F. van Dishoeck, 2013, “Outflow forces of low-mass embedded objects in Ophiuchus: a quantitative comparison of analysis methods”, *A&A*, 556, A76
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