

# Anna Miotello

## contact

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## programming

Python, IDL  
CSS, HTML, L<sup>A</sup>T<sub>E</sub>X

## languages

Italian - mother tongue  
English - fluent  
German - good  
Dutch - basic  
Spanish - basic

## work experience

- 2019–Now **ALMA Regional Centre (ARC) at ESO** Garching (Munich), DE  
*Assistant Astronomer - research (50%) and duty (50%) at the ALMA Regional Centre. Subsystem Scientist for the ALMA Observing Tool (OT), and SnooPI; deputy of the European Phase 2 Group, and editor of the European ARC Newsletter.*
- 2017–2019 **European Southern Observatory (ESO)** Garching (Munich), DE  
*Research Fellow - ALMA data reducer - Co-editor of "The Messenger"*
- 2013–2017 **Leiden Observatory** Leiden, NL  
*PhD Student–Advisor: Prof. Ewine F. van Dishoeck.*
- 2013–2014 **Max-Planck-Institut für extraterrestrische Physik (MPE)** Garching (Munich), DE  
*Graduate Student–Advisors: Prof. Ewine F. van Dishoeck.*
- 2012–2013 **European Southern Observatory (ESO)** Garching (Munich), DE  
*Undergraduate Intern–Advisor: Dr. Leonardo Testi.*
- 2011 **Space Telescope Science Institute (STScI)** Baltimore, USA  
*Summer Student–Advisor: Dr. Massimo Robberto.*

## awards & grants

- 2021 **PPVII Review Chapter** Kyoto, Japan  
Selected review chapter, first author.
- Dec 2020 **DFG Grant** Garching, DE  
As part of the DFG-funded Research Unit on Transitional Disks (RUTD), I was awarded 172.550 € to hire a PhD student, Aashish Gupta, for a duration of 36 months.
- 2011–Now **Observing time awarded**  
**ALMA** Cycle 9: **140 hr as co-PI (1 accepted Large Program)**;  
Cycle 8: 8 hr as Co-I (1 accepted proposal);  
Cycle 7: 105 hr as Co-I (6 accepted proposals);  
Cycle 6: 36 hr as Co-I (4 accepted proposals);  
Cycle 5: 56 hr as Co-I (6 accepted proposals);  
Cycle 4: **7 hr as PI** (2 accepted proposals); 15 hr as Co-I (5 accepted proposals);  
Cycle 3: 13 hr as Co-I (3 accepted proposals);  
Cycle 2: 6 hr as Co-I (1 accepted proposals)  
**VLT**: 158 hr on XSHOOTER as co-I;  
121.5 hr on ESPRESSO as co-I;  
87.1 hr on UVES as co-I;  
6.6 hr on MUSE as co-I;  
4 hr on SPHERE as co-I;  
**CARMA**: **14 hr as PI** (1 accepted proposal)  
**SMA**: 10 hr as Co-I (1 accepted proposal)  
**HST** Cycle 23–24: 20 orbits as Co-I (2 accepted proposals)
- 2017–2019 **ESO Fellowship** Garching, DE  
European Southern Observatory (ESO)
- March 2017 **Poster prize** Puerto Varas, Chile  
"Astrochemistry VII – Through the Cosmos from Galaxies to Planets" IAU Symposium (Puerto Varas, March 20–24, 2017)
- 2014 **CNV Foundation for Young Mothers in Science** Germany  
For a total of 4800 €
- 2014 **A&A highlighted paper**  
The paper "Grain growth in the envelopes and disks of Class I protostars" (Miotello et al., 2014) was selected as one of the 2014 A&A highlighted papers.

Sept. 2014	<b>Best poster presentation prize</b> "Planet Formation and Evolution" conference (Kiel University, Sept 8-10, 2014)	Kiel, DE
2013–Now	<b>PhD studentship</b> Leiden Observatory	Leiden, NL
2012–2013	<b>Undergraduate internship</b> European Southern Observatory (ESO)	Garching, DE
2011	<b>Summer studentship</b> Space Telescope Science Institute (STScI)	Baltimore, USA

## committees & working groups

2021-2022	<b>ASTRONET</b> Participation to the "Planet-Formation and characterization" Working Group for the "ASTRONET Science Vision and Infrastructure Roadmap" document.	Virtual
2018-2020	<b>ESO Fellow-selection Committee</b> Member of the ESO Fellow-selection Committee for three years.	Garching

## conference & workshop organization

Dec. 2022	<b>Disks and Planets across ESO Facilities</b> Member of the Scientific Organizing Committee.	ESO, Garching
Feb. 2022	<b>ESO on-line conference: The present and future of Astronomy</b> Member of the Scientific Organizing Committee, and chair of one session.	ESO, Garching
Oct. 2021	<b>Gaps, rings, spirals, and vortices: structure formation in planet-forming disks</b> Main Co-organiser of a four weeks-long (hybrid) MIAPP Workshop	MIAPP, Garching
March. 2019	<b>Planet-forming disks. A workshop to honor Antonella Natta</b> Member of the Scientific Organizing Committee	Menaggio, Como, Italy
Oct. 2018	<b>Take a closer look - ESO workshop</b> Local co-organizer of an ESO workshop.	ESO, Garching
2015–2016	<b>Master Colloquia</b> Training of master students on their presentation skills; organization of the seminars; grading of student's presentations.	Leiden Observatory
March 2016	<b>Making Better Scientific Figures - workshop</b> Co-organization of a three days workshop with theory and hands-on exercises.	Leiden Observatory

## supervision of students

2021 - 2024	<b>Aashish Gupta</b> 100% Supervision of an DFG-funded PhD student at ESO.	ESO
2020 - 2024	<b>Teresa Paneque Carreno</b> 100% Supervision of an ESO-IMPRS PhD student. Teresa will defend her PhD at Leiden University, which offered her an additional year of PhD.	ESO
Nov-Feb 2021/22	<b>Pietro Pirola</b> (Virtual) Supervision of a Bachelor's student from Milan. Main advisor: Prof. G. Lodato	ESO - University of Milan
Summer 2021	<b>Caterina Minarini</b> Co-supervision of a Master student from Milan, at ESO with an internship. Main advisor: Prof. G. Lodato; co-advisors: Dr. S. Facchini, Dr. C. Manara.	ESO - University of Milan

## conference contributions

7 invited talks and seminars  
10 contributed talks  
9 posters

Jan-May 2020	<b>Alessia Rota</b> Co-supervision of a Master student from Milan, at ESO with an internship. Main advisors: Prof. G. Lodato, Dr. C. Manara.	ESO - University of Milan
Oct-May 2020/21	<b>Michael Alber</b> (Virtual) Supervision of an undergraduate student from Harvard. Co-advisor: Dr. S. Facchini.	ESO - Harvard University
Summer 2019	<b>Francesco zagaria</b> Co-supervision of an undergraduate student during the ESO Summer Research Programme. Co-advisors: Dr. C. Manara, Dr. S. Facchini.	ESO
Oct-Dec 2018	<b>Pierre Cécil Konig</b> Supervision of an undergraduate student.	ESO
2018–Now	<b>Enrique Sanchis Melchor</b> Co-supervision of a PhD's student. Main advisor: Dr. L. Testi.	ESO
2018	<b>Tomas Tax</b> Co-supervision of a PhD's student. Main advisor: Dr. L. Testi.	ESO
2017–2018	<b>Martia Giulia Ubeira-Gabellin</b> Co-supervision of a PhD's student project. Main advisor: Prof. G. Lodato; co-advisors: Dr. S. Facchini, Dr. L. Testi.	University of Milan - Leiden Observatory
2017	<b>Marta de Simone</b> Co-supervision of a Master's thesis project. Main advisor: Dr. L. Testi; co-advisor: Dr. C. Codella.	Osservatorio di Arcetri
2015–2016	<b>Leon Trapman</b> Co-supervision of a Master's thesis project. Main advisor: Prof. E. F. van Dishoeck; co-advisor: Dr. M. Kama.	Leiden Observatory

## talks & seminars (selected)

2021, Sep. 13	<b>Planet-forming Disks: From Surveys to Answers - Invited talk</b> "The Disk Mass Problem"	Lorentz Center online Workshop
2021, May. 19	<b>Core 2 Disk 2 - Contributed talk</b> "Compact Disks: an explanation to faint CO in Lupus Disks"	Paris, Hybrid Conference
2020, Dec. 8	<b>Five years after HL Tau: a new era in planet formation - Invited talk</b> "Disk Chemistry"	ESO Virtual Conference
2020, Oct 15	<b>Astronomy Seminar (virtual) - Invited</b> "Measurements and implications of the fundamental properties of disks"	University of Michigan
2020, Jun. 30	<b>EAS2020: Planet formation enters the observational era - Contributed talk</b> "The C/O ratio in protoplanetary disks"	Leiden, virtual
2019, Dec. 20	<b>Milan Xmas Workshop on Star Formation - Contributed talk</b> "Constraints on volatile C/O ratios in disks with ALMA"	Milan
2019, Oct. 15	<b>ALMA2019: Science Results and Cross-Facility Synergies - Invited talk</b> "The puzzle of Protoplanetary Disk Masses"	Cagliari
2019, Oct. 15	<b>Great Barriers in Planet Formation - Invited talk</b> "The puzzle of Protoplanetary Disk Masses"	Palm Cove
2018, Jul. 11	<b>Astrochemistry: past, present and future - Contributed talk</b> "Puzzling carbon budget and masses of protoplanetary disks"	Pasadena
2018, Jun. 26	<b>Protoplanetary disks seen through the eyes of new-generation high-resolution instruments - Invited talk</b> "Puzzling carbon budget and masses of protoplanetary disks"	Rome
2017, Nov. 8	<b>IV Workshop on millimeter Astronomy in Italy - Contributed talk</b> "Disks with faint CO isotopologues: low gas/dust or high carbon depletion?"	Bologna
2017, Jun. 16	<b>Protoplanetary disks and planet formation and evolution - Contributed talk</b> "Disks with faint CO isotopologues: low gas/dust or high carbon depletion?"	MIAPP Garching

## programming

Python, IDL  
CSS, HTML, L<sup>A</sup>T<sub>E</sub>X

## career breaks

3 months of maternity  
leave (Jan – Mar 2014)

4 months of maternity  
leave (Sep – Dec 2016)

4 months of maternity  
leave (Jan – April 2018)

2016, Aug.23	<b>Astrochemistry Seminar</b> "Disks with faint CO:low gas/dust or large carbon depletion?"	Leiden Observatory
2016, June12	<b>JEDI Meeting - Contributed talk</b> "Disks with faint CO:low gas/dust or large carbon depletion?"	Florence
2016, May 12	<b>Institute General Seminar - Invited</b> "Disks with faint CO:low gas/dust or large carbon depletion?"	Observatory of Arcetri
2016, Mar.16	<b>Protoplanetary Discussions - Contributed talk</b> "Disk mass determination through CO isotopologues "	Edinburgh
2015, Oct.7	<b>From Clouds to Protoplanetary Disks: the Astrochemical Link - Contributed talk</b> "Disk mass determination through CO isotopologues "	Berlin
2014, Dec.18	<b>Milan Christmas Workshop - Contributed talk</b> "Protoplanetary disks masses from CO isotopologues line emission."	University of Milan
2014, Nov.18	<b>Astrochemistry Seminar</b> "Protoplanetary disks masses from CO isotopologues line emission."	Leiden Observatory
2014, July 1	<b>Star and Planet Formation Seminar</b> "Protoplanetary disks masses from CO isotopologues line emission."	ESO, Garching

## education

2013–2018	<b>PhD</b> in Astronomy and Astrochemistry [Defence: March 7, 2018] Thesis: "The puzzle of protoplanetary disk masses" Advisor: Prof. Ewine F. van Dishoeck	Leiden Observatory
2011-2013	<b>Master 's</b> degree in Astrophysics [110/110 cum laude] Thesis: "Investigation of dust grain growth in Class I Young Stellar Objects" Advisors: Prof. Giuseppe Lodato, Dr. Leonardo Testi	University of Milan
2007-2011	<b>Bachelor 's</b> degree in Physics [100/110] Thesis: "Evidence of photoevaporation and spatial variation of grain sizes in the Orion 114-426 protoplanetary disk" Advisors: Dr. Marco A. Potenza, Dr. Massimo Robberto	University of Milan

## further education & training

2021	<b>Introduction to Project Management:</b> edX Course
2020	<b>Respectful Workplace Advisor (RWA) Training program:</b> Offered by ESO Ombuds
2020	<b>Remote Goal Setting and Achieving Goals:</b> Soft skills course
2015	<b>NOVA Fall School:</b> Advanced course on gravitational lensing <b>SAAS-FEE Advanced School:</b> "From protoplanetary disks to planet formation" <b>DALI code development workshop</b> <b>Scientific integrity:</b> Ethic course <b>Effective communication:</b> Soft skills course <b>Communication in Science:</b> Presentation skills and scientific writing course
2014	<b>Time management:</b> Soft skills course
2013	<b>Modeling for ALMA:</b> Summer School <b>CARMA Summer School:</b> From the observations to the scientific result, through data reduction.

## expertise

Data	Reduction of (sub-)mm interferometric data ( <b>CASA, MIRIAD</b> )
Observations	(Sub-)mm interferometry ( <b>ALMA, CARMA, SMA, ATCA</b> ) Optical photometry ( <b>HST/ACS, HST/WFPC2</b> )
Coding	Physical-Chemical & Radiative Transfer modeling ( <b>DALI, RADMC-3D</b> )

## RWA activities

2020 - Nominated as ESO  
Respectful Workplace  
Advisor

2020-2021 - trained by the  
Ombuds on the RWA role

2021-now - providing RWA  
support

## ESO - contribution to science activities

### Student supervision-related Activities

2022	<b>Advanced doctoral lectures: The Physics of Planet-forming Disks</b> Organizer of three sets of high-level PhD Lectures on the "Physics of Protoplanetary Disks". This series of lectures is funded by the SSDF and takes place in person at the ESO premises. <ul style="list-style-type: none"><li>• 7-11 Feb. - "Viscous Evolution in Circumstellar Disks", Prof. G. Lodato (University of Milan);</li><li>• 2-6 May - "MHD Winds and their Effect on Disk Evolution ", Dr. G. Lesur (IPAG Grenoble);</li><li>• 20-24 Jun - "Planet-Formation Theories – Links to the Solar System and Exoplanets ", Dr. A. Morbidelli (OCA Nice);</li></ul>	Garching
2021-now	<b>SPF Group Meetings</b> Organizer of the weekly "Star & Planet Formation Group Meetings", where ESO students working in this field present their progress and receive feedback from each other, ESO fellows, and staff members.	Garching
2019-now	<b>Supervision</b> <b>Main and co-advisor</b> of ESO PhD and undergraduate students: <ul style="list-style-type: none"><li>• 2021/24 - Aashish Gupta - DFG-funded PhD student at ESO;</li><li>• 2020/24 - Teresa Paneque Carreno - IMPRS PhD student at ESO;</li><li>• 2021 - Caterina Minarini - SSDF-funded M.A. at ESO (co-supervision);</li><li>• 2020 - Alessia Rota - SSDF-funded M.A. Student at ESO (co-supervision);</li><li>• 2019 - Francesco Zagaria - ESO Summer Research Student (co-supervision);</li></ul>	Garching

### ESO Workshops

2022, Feb.	<b>ESO on-line conference: The present and future of Astronomy</b> Member of the Scientific Organizing Committee, and chair of one session.	Garching
2018, Oct.	<b>Take a closer look - ESO workshop</b> Local co-organizer of an ESO workshop.	Garching

### Committees

2018-2021	<b>ESO Fellow-selection Committee</b> Member of the ESO Fellow-selection Committee for three years (first year as Fellow representative, and later as Astronomer).	Garching
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### Seminar organization

2019-2020	<b>SPF Seminars/Webinars</b> Organiser of the "Star & Planet Formation" Seminar, which was turned into a Webinar starting from May 2020. Attendees from ESO/MPE/USM.	Garching
2020, July	<b>Streaming of the EAS2020 Plenary session</b> Co-organizer of the streaming of the Plenary session of the EAS2020 conference in Fornax.	Garching

## public outreach

Design and public presentation of the exposition "Exoplanets - Nuove terre inesplorate, l'antico mistero della vita" (Rimini - Aug. 2018)

2 unrefereed publications (www.ilsussidiario.net)

6 astronomy lecture to high-school students (Garching - Apr.2022) (Varese - May.2021) (Bolzano - Jan.2021) (Varese - June.2020) (Garching - Sep.2019) (Milan - April. 2018)

1 astronomy lecture to elementary-school pupils (Munich - May 2018)

## Seminar participation

2021, Mar.10 **Informal Discussion** Garching  
Presentation at the ESO Informal Discussion on the re-analysis of the ALMA data that led to the claimed detection of Phosphine on Venus.

2019-2021 **ESO Journal Club** Garching  
Multiple paper presentations at the ESO Journal Club (on 3 Jun 2022, 23 Jul 2021, 19 Mar 2021, 3 Jul 2020, 22 Nov 2019, 26 Oct 2018)

## ESO-internal funding

2022 **SSDF - Advanced doctoral lectures** Garching  
Granted 2022 SSDF fundings - as **main proposer** - up to a total of max. 3,300 EUR in support of 3 independent visits by 3 lecturers.

2021 **SSDF - M.A. Student Internship** Garching  
Granted 2021 SSDF fundings - as co-proposer - up to a total of max. 8,000 EUR in support of student Caterina Minarini from University of Milan.

2020 **SSDF - M.A. Student Internship** Garching  
Granted 2020 SSDF fundings - as co-proposer - up to a total of max. 9,500 EUR in support of student Alessia Rota from University of Milan.

2019 **SSDF - ESO Summer Research Programme** Garching  
Granted 2019 SSDF fundings - as co-proposer - up to a total of max. 19,400 EUR in support of of an ESO Summer Studentship School for six students.

## Articles on "The Messenger"

During my ESO Fellowship (2017-2019) I have been the **co-editor** of "The Messenger"; later on I have also been co-author on the following articles:

### [3] "A Guide to ALMA Operations and Interactions with the Community "

Zwaan, M.; Hatziminaoglou, E.; Kemper, F.; Testi, L.; Humphreys, E.; Fukagawa, M.; Remijan, A.; Biggs, A.; Díaz Trigo, M. search by orcid; Guglielmetti, F.; van Kampen, E.; Maud, L.; **Miotello, A.**; Petry, D.; Popping, G.; Randall, S.; Stanke, T.; Stoehr, F., **(2021, The Messenger, 184, 16)**

### [2] "ALMA Data Quality Assurance and the Products it Delivers - The Contribution of the European ARC"

Petry, D., Stanke, T., Biggs, A., Díaz Trigo, M., Guglielmetti, F., Hatziminaoglou, E., van Kampen, E., Maud, L., **Miotello, A.**, Popping, G., Randall, S., Stoehr, F., and Zwaan, M. **(2020, The Messenger, 181, 16)**

### [1] "The ESO Summer Research Programme 2019"

Manara, C. F., Harrison, C., Zanella, A., Agliozzo, C., Anderson, R. I., Arrigoni Battaia, F., Belfiore, F., van der Burg, R., Chen, C.-C. T. C., Facchini, S., Fensch, J., Jethwa, P., Kokotanekova, R., Lelli, F., **Miotello, A.**, Pala, A., Querejeta, M., Rubin, A., Wylezalek, D., and Watkins, L. **(2019, The Messenger, 178, 57)**

## ESO outreach activity

2022, Apr.7 **Supernova Tour & Presentation** Garching  
Supernova Tour in Italian to students from an Italian high school, followed by a presentation on Exoplanets.

2019, Sep.30 **Science allowed by ALMA** Garching  
Lecture about "Science allowed by ALMA" to a group of Italian high school teachers at Supernova

2019, Mar.27 **Supernova Tour & Presentation** Garching  
Supernova Tour in Italian to students from an Italian high school, followed by a presentation on Exoplanets.

# publication list

## ORCID

0000-0002-7997-2528

## Peer Review

Served as referee for several publications in A&A and ApJ.

### first author publications

- [10] "PPVII Review Chapter - Setting the Stage for Planet Formation: Measurements and Implications of the Fundamental Disk Properties"  
**Miotello, A.**, Kamp, I., Birnstiel, T., Cleeves, L. I., Kataoka, A., **2022, arXiv:2203.09818**
- [9] "Compact disks. An explanation to faint CO emission in Lupus disks"  
**Miotello, A.**, Rosotti, G., Ansdell, M., Facchini, S., Manara, C. F., Williams, J.P., Bruderer, S., **2021, A&A, 651, A48**
- [8] "Bright C<sub>2</sub>H emission in protoplanetary discs in Lupus: high volatile C/O > 1 ratios"  
**Miotello, A.**, Facchini S., van Dishoeck, E. F., Cazzoletti, P., Testi, L., Williams, J.P., Ansdell, M., van Terwisga, S., and van der Marel, N., **2019, A&A, 631, A69**
- [7] "Probing the protoplanetary disk gas surface density distribution with <sup>13</sup>CO emission"  
**Miotello, A.**, Facchini S., van Dishoeck, E. F., Bruderer, S., **2018, A&A, 619, A113**
- [6] "Lupus disks with faint CO: low gas/dust or large carbon depletion?"  
**Miotello, A.**, **2018, IAU Symposium, 332, 124**
- [5] "Lupus disks with faint CO: low gas/dust or large carbon depletion?"  
**Miotello, A.**, van Dishoeck, E. F., Williams, J. P., Ansdell, M., Guidi, G., Hogerheijde, M., Manara, C. F., Tazzari, M., Testi, L., van der Marel, N., van Tervisga, S., **2017, A&A, 599, A113**
- [4] "Determining protoplanetary disk gas masses from CO isotopologues line observations"  
**Miotello, A.**, van Dishoeck, E. F., Kama M., Bruderer, S., **2016, A&A, 594, A85**
- [3] "Protoplanetary disks masses from CO isotopologues line emission"  
**Miotello, A.**, Bruderer, S., van Dishoeck, E., **2014, A&A, 572, A96**
- [2] "Grain growth in the envelopes and disks of Class I protostars"  
**Miotello, A.**, Testi, L., Lodato, G., Ricci, L., Rosotti, G., Brooks, K., Maury, A., Natta, A., **2014, A&A, 567, A32**
- [1] "Evidence of Photoevaporation and Spatial Variation of Grain Sizes in the Orion 114-426 Protoplanetary Disk"  
**Miotello, A.**, Robberto, M., Potenza, M., Ricci, L., **2012, ApJ, 757, 78**

### second and third author publications

- [5] "Vertically extended and asymmetric CN emission in the Elias 2-27 protoplanetary disk"  
Paneque-Carreño, T., **Miotello, A.**, van Dishoeck, E. F., Tabone, B., Izquierdo, A. F., Facchini, S., **2022, arXiv:2210.01130**
- [4] "Vertically extended and asymmetric CN emission in the Elias 2-27 protoplanetary disk"  
Paneque-Carreño, T., **Miotello, A.**, van Dishoeck, E. F., Pérez, L. M., Facchini, S., Izquierdo, A. F., Tychoniec, L., Testi, L., **2022, A&A, 666, A168**
- [3] "Observational constraints on disc sizes in protoplanetary discs in multiple systems in the Taurus region. II. Gas disc sizes"  
Rota, A. A., Manara, C. F., **Miotello, A.**, Lodato, G., Facchini, S., Koutoulaki, M., Herczeg, G., Long, F., Tazzari, M., Cabrit, S., Harsono, D., Menard, F., Pinilla, P., van der Plas, G., Ragusa, E., and Yen, H.-W., **2022, A&A, 662, A121**
- [2] "A dust and gas cavity in the disc around CQ Tau revealed by ALMA"  
Ubeira Gabellini, M. G., **Miotello, A.**, Facchini, S., Ragusa, E., Lodato, G., Testi, L., Benisty, M., Bruderer, S., T. Kurtovic, N., Andrews, S., Carpenter, J., Corder, S. A., Dipierro, G., Ercolano, B., Fedele, D., Guidi, G., Henning, T., Isella, A., Kwon, W., Linz, H., McClure, M., Perez, L., Ricci, L., Rosotti, G., Tazzari, M., and Wilner, D. **2019, MNRAS, 486, 4638**
- [1] "Far-infrared HD emission as a measure of protoplanetary disk mass"  
Trapman, L., **Miotello, A.**, Kama, M., van Dishoeck, E. F., Bruderer, S., **2017, A&A, 605, A69**

## co-author publications

- [37] "Hydrostatic Equilibrium Does Not Solve the C<sup>18</sup>O Flux Problem in Protoplanetary Disks"  
Bosman, A. D., Trapman, L., Sturm, A., Bergin, E. A., Booth, A. S., Calahan, J. K., van Dishoeck, E. F., McClure, M. K., **Miotello, A.**, Zhang, K. ; **2022, RNAAS, 6, 176.**
- [36] "FAUST. V. Hot methanol in the [BHB2007] 11 protobinary system; hot corino versus shock origin"  
Vastel, C., Alves, F., Ceccarelli, C., Bouvier, M., Jiménez-Serra, I., Sakai, T., Caselli, P., Evans, L., Fontani, F., Le Gal, R., Chandler, C. J., Svoboda, B., Maud, L., Codella, C., Sakai, N., López-Sepulcre, A., Moellenbrock, G., Aikawa, Y., Balucani, N., Bianchi, E., Busquet, G., Caux, E., Charnley, S., Cuello, N., De Simone, M., Dulieu, F., Durán, A., Fedele, D., Feng, S., Francis, L., Hama, T., Hanawa, T., Herbst, E., Hirota, T., Imai, M., Isella, A., Johnstone, D., Lefloch, B., Loinard, L., Maureira, M., Murillo, N. M., Mercimek, S., Mori, S., Menard, F., **Miotello, A.**, Nakatani, R., Nomura, H., Oba, Y., Ohashi, S., Okoda, Y., Ospina-Zamudio, J., Oya, Y., Pineda, J. E., Podio, L., Rimola, A., Segura Cox, D., Shirley, Y., Testi, L., Viti, S., Watanabe, N., Watanabe, Y., Witzel, A., Xue, C., Zhang, Y., Zhao, B., Yamamoto, S. , **2022, A&A, 664, A171.**
- [35] "Chemical and Physical Characterization of the Isolated Protostellar Source CB68: FAUST IV"  
Imai, M., Oya, Y., Svoboda, B., Liu, H. B., Lefloch, B., Viti, S., Zhang, Y., Ceccarelli, C., Codella, C., Chandler, C. J., Sakai, N., Aikawa, Y., Alves, F. O., Balucani, N., Bianchi, E., Bouvier, M., Busquet, G., Caselli, P., Caux, E., Charnley, S., Choudhury, S., Cuello, N., Simone, M. D., Dulieu, F., Durán, A., Evans, L., Favre, C., Fedele, D., Feng, S., Fontani, F., Francis, L., Hama, T., Hanawa, T., Herbst, E., Hirano, S., Hirota, T., Isella, A., Jiménez-Serra, I., Johnstone, D., Kahane, C., Le Gal, R., Loinard, L., López-Sepulcre, A., Maud, L. T., Maureira, M. J., Menard, F., Mercimek, S., **Miotello, A.**, Moellenbrock, G., Mori, S., Murillo, N. M., Nakatani, R., Nomura, H., Oba, Y., O'Donoghue, R., Ohashi, S., Okoda, Y., Ospina-Zamudio, J., Pineda, J., Podio, L., Rimola, A., Sakai, T., Segura-Cox, D., Shirley, Y., Taquet, V., Testi, L., Vastel, C., Watanabe, N., Watanabe, Y., Witzel, A., Xue, C., Zhao, B., Yamamoto, S., **2022, ApJ, 934, 70.**
- [34] "Misaligned Rotations of the Envelope, Outflow, and Disks in the Multiple Protostellar System of VLA 1623-2417: FAUST. III"  
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