Jaime E. Pineda Fornerod

Curriculum Vitae

Max-Planck-Institut für extraterrestrische Physik
85748, Garching, Germany
(+49 89 300003610)
jpineda@mpe.mpg.de
http://jpinedaf.github.io
jpinedaf

Last Updated: September 24, 2026

Experience

2020– **Staff Astronomer**, *Center for Astrochemical Studies (CAS@MPE)*, Max-Planck-Institut für extraterrestrische Physik (MPE), Garching, Germany

2014–2020 **Post-doc**, *Center for Astrochemical Studies (CAS@MPE)*, Max-Planck-Institut für extraterrestrische Physik (MPE), Garching, Germany

2013–2014 **STARFORM Fellow**, *Star and Planet Formation group*, Swiss Federal Institute of Technology in Zurich (ETH Zurich), Zurich, Switzerland

2010–2013 **ESO ALMA Fellow**, *ESO/University of Manchester*, University of Manchester, Manchester, UK

2010 **Post-doc**, *Harvard University*, Cambridge, MA

Education

2010 **Ph.D., Astronomy**, *Harvard University*, Cambridge, MA
Dissertation: The Origin and Inner Workings of Star-Forming Cores

advisor: Professor Alyssa A. Goodman

2007 **A.M., Astronomy**, *Harvard University*, Cambridge, MA

2005 **M.S., Astronomy**, *Universidad de Chile*, Santiago, Chile

advisor: Professor Guido Garay

2003 **B.S., Astronomy**, *Universidad de Chile*, Santiago, Chile

Awards and Recognition

Beatrice M. Tinsley Visiting Scholar, *University of Texas at Austin*, 2023

First author of review chapter in Protostars and Planets VII

Professional Service

Committee Member **Science Advisory Committee of IRAM**, 2026–

Committee Member **Chair of Star Formation Science Review Panel**, *NRAO Time Allocation Committee*, 2023–2024

Member of Star Formation Science Review Panel, *NRAO Time Allocation Committee*, 2021–2022

member of ngVLA Working group

member of FIRSST Science Team

Member of SOFIA German Panel, *Time Allocation Committee*, 2021–2022

SOC Chair of Special Session at EAS 2021

SOC member EPOS2024

SOC member Chemical and dynamical properties of prestellar cores

Member of Joint Astronomical Colloquium (JAC) organising committee, including members of ESO, MPE, MPA, and LMU

External thesis committee member for Dr. C.-H. Hsieh at Yale University

External thesis committee member for Dr. L. Wölfer at Leiden University

External thesis committee member for Dr. H. Chen at Harvard University

External thesis committee member for Dr. J. Lewis at Harvard University

Post-doc and student recruitment panel for CAS@MPE Group

Collaborations **co-PI of GAS (GBT large program)**

Collaborations **co-PI of ProPStarK (VLA large program)**

coordinator of Class 0 and I MIOP program (NOEMA large program)

member of JCMT Gould Belt Survey, FAUST (ALMA large program), ACES (ALMA large program), DiSCo GAS (GBT large program), SOLIS (NOEMA large program), KEYSTONE (GBT large program), COMPLETE, MASSES (Legacy program at SMA)

Reviewer **Member of ALMA TAC (Cycle 4, Cycle 5, and Cycle 8)**

Expert referee for Marie Skłodowska-Curie Individual Fellowships

Expert referee for JCMT and e-MERLIN TAC

Research Assessor on Chilean National Science Foundation (CONICYT) Grant applications

Referee for Nature, Nature Astronomy, MNRAS, ApJ, A&A, RAA, PASP, AJ

Ph.D. and M.Sc. Student co-supervision

2025–present **L. Mason**, *MPE*, Ph.D.

2024–present **Y.-R. Chou**, *MPE*, Ph.D.

2020–2024 **M. T. Valdivia-Mena**, *MPE*, Ph.D.

2022 **D. Cherouvrier**, *CEA Saclay*, M.Sc..

2020–2021 **T. Carl**, *Freie Universität Berlin*, M.Sc..

2018–2022 **S. Choudhury**, *MPE*, Ph.D.

2015–2020 **C. Agurto-Gangas**, *MPE*, Ph.D.

2014–2018 **V. Sokolov**, *MPE*, Ph.D.

2014–2018 **A. Chacon-Tanarro**, *MPE*, Ph.D.

2014–2017 **A. Punanova**, *MPE*, Ph.D.

2011–2014 **M. Lackington**, *University of Manchester*, Ph.D.

Seminars and Colloquia

2026 **Colloquium**, *ASIAA*, Taipei, Taiwan

2025 **Colloquium**, *University of Copenhagen*, Copenhagen, Denmark

2024 **Seminar**, *Center for Computational Astrophysics*, Flatiron Institute, New York, USA

2024 **Seminar**, *Department of Astronomy*, Columbia University, New York, USA

2024 **Seminar**, *Department of Astrophysical Sciences*, Princeton University, Princeton, USA

2024 **Seminar**, *Radio and Geoastronomy Division*, Harvard-Smithsonian Center for Astrophysics, Cambridge, MA, USA

2023 **Seminar**, *Istituto di Astrofisica e Planetologia Spaziali*, Rome, Italy

2023 **Seminar**, *University of Texas Austin*, Austin, TX, USA

2023 **Colloquium**, *University of Texas Austin*, Austin, TX, USA

2022 **Seminar**, *Radio and Geoastronomy Division*, Harvard-Smithsonian Center for Astrophysics, Cambridge, MA, USA

2022 **Colloquium**, *Joint ALMA Observatory (JAO)*, Santiago, Chile

2021 **Seminar**, *Green Bank Observatory Community Zoom*, Virtual

2021 **Star and Planet Formation seminar**, *ESO/MPE*, Garching, Germany

2020 **Colloquium**, *IRyA, UNAM*, Virtual

2019 **Colloquium**, *Ludwig-Maximilians-University*, Munich, Germany

2019 **Colloquium**, *MPIA*, Heidelberg, Germany

2019 **Seminar**, *University of Manchester*, Manchester, UK

2019 **Colloquium**, *CEA-Saclay*, Paris, France

2018 **Seminar**, *Radio and Geoastronomy Division*, Harvard-Smithsonian Center for Astrophysics, Cambridge, MA, USA

2017 **Colloquium**, *Universität zu Köln*, Köln, Germany

2017 **Colloquium**, *NRC Herzberg*, Victoria, Canada

2017 **Colloquium**, *Arcetri Astrophysical Observatory (INAF)*, Florence, Italy

2016 **Seminar**, *RIKEN*, Tokio, Japan

2015 **Colloquium**, *Universidad de Chile*, Santiago, Chile

2015 **Disk Group (MAD) Seminar**, *Universidad de Chile*, Santiago, Chile

2015 **ISM and Star Formation Seminar**, *Universidad de Chile*, Santiago, Chile

2015 **Star and Planet Formation seminar**, *ESO/MPE*, Garching, Germany

2014 **Seminar**, *MPE*, Garching, Germany

2014 **Colloquium**, *University of Geneva*, Geneva, Switzerland

2013 **Star-formation meeting**, *Yale University*, New Haven, CT, USA

2013 **Radio and Geoastronomy Division talk**, *Harvard-Smithsonian Center for Astrophysics*, Cambridge, MA, USA

2013 **Internal Seminar**, *ETH Zurich*, Zurich, Switzerland

2012 **Colloquium**, *University of Vienna*, Vienna, Austria

2012 **Internal Seminar**, *University of Manchester*, Manchester, UK

2012 **Cavendish seminar series**, *Cambridge University*, Cambridge, UK

2012 **Colloquium**, *University of Exeter*, Exeter, UK

2011 **Seminar**, *NRAO*, Green Bank, WV, USA

2010 **Seminar**, *Observatorio Astronómico Nacional*, Madrid, Spain

2010 **Seminar**, *Joint Astronomy Centre*, Hawaii, USA

2010 **Colloquium**, *University of Leeds*, Leeds, UK

2010 **Colloquium**, *University of Manchester*, Manchester, UK

2010 **Colloquium**, *Pontificia Universidad Católica de Chile*, Santiago, Chile

2010 **Colloquium**, *Universidad de Chile*, Santiago, Chile

2010 **ITC Lunch Talk**, *Harvard-Smithsonian Center for Astrophysics*, Cambridge, MA, USA

Conference Talks

2026 **Missing Links in Planet Formation: From Embedded Disks to Planets**, *Invited Talk*, Taipei, Taiwan

2026 **ISSI-BJ Workshop: Cross-disciplinary Perspectives on Small Body Formation and Evolution**, *Invited Talk*, Beijing, China

2026 **European Astronomical Society (EAS) Annual Meeting**, *Talk*, Florence, Italy

2026 **Chemical and dynamical properties of prestellar cores**, *Invited*, Fukuoka, Japan

2026 **Unifying Galactic and Extragalactic Views of Star Formation**, *Invited*, Paris, France

2026 **Unveiling ALMA Band 2**, Bologna, Italy

2025 **Multiplicity in young stars**, Copenhagen, Denmark

2025 **Wetterstein Millimeter Telescope conference**, *Invited*, Zugspitze, Germany

2025 **Puzzles of Star Formation II**, *Invited*, Ringberg, Germany

2025 **ACS Spring 2025**, San Diego, USA

2024 **Cosmic rays 3**, *Invited*, Florence, Italy

2024 **Vietnam School of Astrophysics**, *Invited Lecturer*, Quy Nhon, Vietnam

2024 **European Astronomical Society (EAS) Annual Meeting**, *Talk*, Padova, Italy

2024 **Spatio-spectral Modeling of Interferometric Data: Preparing for the Wideband Era workshop**, *Invited talk*, Charlottesville, USA

2024 **Multidisciplinary School of Astrochemistry**, *Invited Lecturer*, Madrid, Spain

2024 **SUL4LIFE Kick-off meeting**, *Invited*, Madrid, Spain

2023 **Core2disk-III**, *Invited*, Paris, France

2023 **Chemical processes in Solar-type Star Forming Regions**, Toulouse, France

2023 **Protostars and Planets VII**, *Invited Review*, Kyoto, Japan

2022 **Next Generation Astrochemistry: Reconstruction of the Science Based on Fundamental Molecular Processes**, Tokyo, Japan

2022 **Molecules in Extreme Environments; Near and Far**, *Invited Review*, Tokyo, Japan

2022 **Cosmic Rays 2: The salt of the star-formation recipe**, Florence, Italy

2022 **K-Band Science Using the Green Bank Telescope**, *Invited Talk and Panel Discussion*, Green Bank, WV, USA

2022 **Interstellar Institute (I2) Workshop: With two eyes**, Paris, France

2022 **Seeing the Future: Of the Universe, Data, Learning, & Digital Scholarship**, *Invited Panel Discussion*, New Castle, NH, USA

2022 **Multi-line Diagnostics of the Interstellar Medium**, Nice, France

2021 **Gaps, Rings, Spirals, and Vortices: Structure Formation in Planet-Forming Disks**, Garching, Germany

2021 **EAS 2021: Special Session SS19**, *Virtual*, Leiden, Netherlands

2021 **Core2Disk 2**, *Invited Talk*, Paris, France

2020 **Virtual Congreso Astrobiologia**, *Invited Talk*, Bogotá, Colombia

2020 **Wider and Deeper at Green Bank: The New Argus-144 Instrument**, *Virtual*, Green Bank, WV, USA

2019 **ALMA2019: Science Results and Cross-Facility Synergies**, Cagliari, Italy

2019 **EWASS2019, Symposium S11**, *Invited Review*, Lyon, France

2019 **EWASS2019, Special Session SS15**, Lyon, France

2018 **The Early Phase of Star Formation (EPOS2018)**, Ringberg, Germany

2018 **Core2Disk**, *Invited Talk*, Paris, France

2017 **The Physics of the ISM**, Köln, Germany

2016 **The Hydride Toolbox**, Paris, France

2016 **American Astronomical Society Meeting #227**, Kissimmee, FL, USA

2015 **The 6th Zermatt ISM Symposium**, Zermatt, Switzerland

2015 **Disc Dynamics and Planet Formation**, Larnaka, Cyprus

2015 **Harvard-Heidelberg Star Formation Meeting 2015 (HHSF15)**, *Research Highlight talk*, Cambridge, MA, USA

2014 **OSSF14: The Olympian Symposium on Star Formation**, Paralia Katerini, Greece

2014 **AASTCS 4: Workshop on Dense Cores: Origin, Evolution, and Collapse**, *Invited talk*, Monterrey, CA, USA

2013 **UK National Astronomy Meeting**, *2 talks*, St. Andrews, UK

2012 **The First Year of ALMA Science**, Puerto Varas, Chile

2012 **StarZ meeting**, *Review talk*, Zurich, Switzerland

2012 **Frontiers of Star Formation Workshop**, ESTEC, Noordwijk, Netherlands

2012 **Origins of Stars and their Planetary Systems**, McMaster University, Hamilton, Canada

2011 **The Milky Way in the Herschel Era**, Rome, Italy

2011 **American Astronomical Society Meeting #218**, Boston, MA, USA

2011 **ALMA Community Days**, *Review talk*, ESO, Garching, Germany

2010 **10th European VLBI Network Symposium and EVN Users Meeting**, *Review talk*, Manchester, UK

2010 **The Early Phase of Star Formation (EPOS2010)**, Ringberg, Germany

2010 **From Stars to Galaxies**, Gainsville, FL, USA

2010 **American Astronomical Society Meeting #215**, Washington, DC, USA

2009 **Star formation: the pre-ALMA stage**, *Invited talk*, Santiago, Chile

2009 **American Astronomical Society Meeting #213**, Long Beach, CA, USA

2007 **American Astronomical Society Meeting #209**, Seattle, WA, USA

Observing Time as PI

Summary:, *Since 2010, I have obtained a substantial amount of telescope time as PI: ALMA (69 hrs), VLA (425 hrs), NOEMA (131 hrs), GBT (436 hrs), IRAM 30m (244 hrs)*

Publications

Summary:, *The full list of publications include about 158 publications in high-impact journals (Nature, Nature Astronomy, MNRAS, ApJ, A&A, AJ), with an h-index of 58 and collecting around 11 390 citations (more than 1300 citations in 2026 alone). An up-to-date list of publications can be found here:* `http://bit.ly/JPineda_pub_35EaU4n`. *Since I participate in a few collaborations, where because of the large number of authors it is difficult to quantify the individual contribution, I list those publications those where I consider my contribution to be substantial together with those of fewer authors*

Submitted or in Press

[1] Jinjin Xie, Yaoting Yan, Zhiyuan Ren, Jarken Esimbek, Di Li, et al. ALOHA IRDCs Molecular Line Follow-up: I. Gas properties and kinematics. *arXiv e-prints*, page arXiv:2608.20238, Aug. 2026, 2608.20238.

[2] Jennifer Wallace, Cara Battersby, Nazar Budaiev, H Perry Hatchfield, Ashley T. Barnes, et al. ACES VII. Compact Continuum Source Catalog of the Central Molecular Zone. *arXiv e-prints*, page arXiv:2609.00135, Aug. 2026, 2609.00135.

[3] Daniel L. Walker, Adam Ginsburg, Ashley T. Barnes, Xing Lu, Pei-Ying Hsieh, et al. ALMA Central molecular zone Exploration Survey (ACES) III: Molecular line data reduction and HNCO and HCO^+ data. *arXiv e-prints*, page arXiv:2602.20276, Feb. 2026, 2602.20276.

[4] Andrea Socci, Ashley Barnes, Jaime Pineda, Olli Sipilä, Caroline Gieser, et al. Low cosmic-ray ionisation at parsec scales in G035.39-00.33. *arXiv e-prints*, page arXiv:2606.28765, June 2026, 2606.28765.

[5] E. Redaelli, S. Spezzano, P. Caselli, J. Harju, D. Arzoumanian, et al. Corona Australis 151: an extremely young protostar. *arXiv e-prints*, page arXiv:2609.05026, Sept. 2026, 2609.05026.

[6] D. Navarro-Almaida, B. Commerçon, U. Lebreuilly, P. Hennebelle, A. Ahmad, et al. Series of core collapse numerical simulations (SOLANUM) I: Modelling the early and

late infall in a sun-like protostar. *arXiv e-prints*, page arXiv:2609.08376, Sept. 2026, 2609.08376.

[7] Xing Lu, Daniel L. Walker, Adam Ginsburg, Ashley T. Barnes, Pei-Ying Hsieh, et al. ALMA Central Molecular Zone Exploration Survey (ACES)-IV. Data of the two intermediate-width spectral windows. *arXiv e-prints*, page arXiv:2602.20445, Feb. 2026, 2602.20445.

[8] Steven N. Longmore, John Bally, Ashley T. Barnes, Cara Battersby, Laura Colzi, et al. ALMA Central Molecular Zone Exploration Survey (ACES) I: Overview. *arXiv e-prints*, page arXiv:2602.20340, Feb. 2026, 2602.20340.

[9] Dani R. Lipman, Jakub Poznanski, Savannah R. Gramze, Claire E. Cook, Cara Battersby, et al. ACES VIII: A Survey of Compact, High-Velocity Features Observed in CS(2-1). *arXiv e-prints*, page arXiv:2609.10472, Sept. 2026, 2609.10472.

[10] Shuting Lin, Siyi Feng, Junzhi Wang, Shanghuo Li, Dan Miao, et al. MIAO-ALMA: Shocks and Protostellar Outflows in 70 μm-dark clumps with $L/M < 1\ L_{\odot}/M_{\odot}$. *arXiv e-prints*, page arXiv:2608.21978, Aug. 2026, 2608.21978.

[11] Pei-Ying Hsieh, Daniel L. Walker, Adam Ginsburg, Ashley T. Barnes, Xing Lu, et al. ALMA Central molecular zone Exploration Survey (ACES) V: CS(2-1), SO(2_3-1_2), CH3CHO(5_1,4-4_1,3), HC3N(11-10), and H40a lines data. *arXiv e-prints*, page arXiv:2603.00863, Mar. 2026, 2603.00863.

[12] Cheng-Han Hsieh, Aleksey Generozov, Stella S. R. Offner, Héctor G. Arce, **Jaime E. Pineda**, et al. Preferential alignment of Class 0, Class I protostellar disks in multiple systems across nine nearby molecular clouds. *arXiv e-prints*, page arXiv:2607.14294, July 2026, 2607.14294.

[13] T. Grassi, G. Vermariën, J. E. Pineda, S. Spezzano, S. Bovino, and P. Caselli. End-to-end differentiable retrieval of molecular spectra using hydrodynamics, chemistry, and radiative transfer. *arXiv e-prints*, page arXiv:2607.28727, July 2026, 2607.28727.

[14] Adam Ginsburg, Daniel L. Walker, Ashley T. Barnes, Xing Lu, Álvaro Sánchez-Monge, et al. ALMA Central Molecular Zone Exploration Survey (ACES) II: 3mm continuum images. *arXiv e-prints*, page arXiv:2602.20240, Feb. 2026, 2602.20240.

Articles

[1] Q. Yang, H. Baobab Liu, S. Feng, C. J. Chandler, F. Fontani, et al. FAUST: XXXI. Grain properties and variability of three sources in GSS 30. *A&A*, 711:A117, July 2026, 2606.22489.

[2] María Teresa Valdivia-Mena, **Jaime E. Pineda**, Caroline Gieser, Paola Caselli, Dominique M. Segura-Cox, et al. PRODIGE ? Envelope to disk with NOEMA: VIII. Sulfur oxides trace a shock caused by a streamer in the inner envelope of a protostar. *A&A*, 709:A53, Apr. 2026, 2603.17918.

[3] Yoshiaki Sofue, Steven N Longmore, Daniel Walker, Adam Ginsburg, Jonathan D Henshaw, et al. Electron temperature and emission measure of H II regions in the central

molecular zone (CMZ) from H40α recombination line and continuum emissions by ALMA CMZ Exploration Survey (ACES). *PASJ*, Sept. 2026, 2608.10227.

[4] Giovanni Sabatini, Gemma Busquet, Carlos Carrasco-González, Adriana Rodríguez-Kamenetzky, Codella Claudio, et al. Jets and Outflows in Young Stellar Objects with the SKAO. *arXiv e-prints*, page arXiv:2606.26044, June 2026, 2606.26044.

[5] Isaac C. Radley, John D. Ilee, Gemma Busquet, Hauyu Baobab Liu, Klaus M. Pontoppidan, et al. A JWST, ALMA, and VLA Survey of the Ophiuchus A Star-forming Region: Unveiling Hidden Dust Mass and Connecting Infrared Outflows to Their Radio Origins. *AJ*, 172(4):190, Oct. 2026, 2607.15468.

[6] Linda Podio, Lisa Giani, Catherine Walsh, Audrey Coutens, Izaskun Jiménez-Serra, et al. Unveiling Complex Chemistry in Planet-forming Disks with the SKAO. *arXiv e-prints*, page arXiv:2606.27289, June 2026, 2606.27289.

[7] **Jaime E. Pineda**, Rachel K. Friesen, (co-PIs), Erik Rosolowsky, Ana Chacón-Tanarro, et al. The Green Bank Ammonia Survey: Data Release 2. *ApJS*, 282(1):18, Jan. 2026, 2510.10607.

[8] Igor Petrashkevich, Anna Punanova, Paola Caselli, **Jaime E. Pineda**, Olli Sipilä, and Anton Vasyunin. Deuterium Fractionation and CO Depletion in Barnard 5. *ApJ*, 997(2):296, Feb. 2026, 2512.10143.

[9] M. J. Maureira, J. E. Pineda, H. B. Liu, P. Caselli, C. Chandler, et al. FAUST: XXVIII. High-resolution ALMA observations of Class 0/I disks: Structure, optical depths, and temperatures. *A&A*, 705:A96, Jan. 2026, 2510.19635.

[10] Yuxin Lin, Silvia Spezzano, Olli Sipilä, **Jaime E. Pineda**, and Paola Caselli. First Mapping of Prebiotic Molecule CH_2NH in a Prestellar Core. *ApJL*, 996(2):L32, Jan. 2026, 2512.12396.

[11] Bo Huang, Josep M. Girart, Ian W. Stephens, Tom Megeath, Valentin J. M. Le Gouellec, et al. Magnetogravitationally regulated streamer accretion onto a class 0 protostellar system. *Science Advances*, 12:3.413, May 2026, 2606.01707.

[12] Cheng-Han Hsieh, Héctor G. Arce, María José Maureira, **Jaime E. Pineda**, Dominique Segura-Cox, et al. The onset of protostellar disk substructures and planet formation. In *American Astronomical Society Meeting Abstracts*, volume 247 of *American Astronomical Society Meeting Abstracts*, page 348.02, Feb. 2026.

[13] T. Grassi, J. E. Pineda, S. Spezzano, D. Arzoumanian, F. Lique, et al. A differentiable and optimizable 3D model for interpretation of observed spectral data cubes. *arXiv e-prints*, page arXiv:2603.06791, Mar. 2026, 2603.06791.

[14] Jan Forbrich, Gary A. Fuller, Mark A. Thompson, Eleonora Bianchi, **Jaime E. Pineda**, et al. SKAO-ALMA Synergies in Star Formation Science. *arXiv e-prints*, page arXiv:2607.25721, July 2026, 2607.25721.

[15] L. A. Busch, J. E. Pineda, P. Caselli, D. M. Segura-Cox, S. Narayanan, et al. PRODIGE ? Envelope to disk with NOEMA: VII. (Complex) organic molecules in the NGC1333 IRAS 4B1 outflow: A new laboratory for shock chemistry. *A&A*, 708:A315, Apr. 2026.

[16] Laura A. Busch, J. E. Pineda, P. Caselli, D. M. Segura-Cox, S. Narayanan, et al. PRODIGE - envelope to disk with NOEMA: VII. (Complex) organic molecules in the NGC1333 IRAS4B1 outflow: A new laboratory for shock chemistry. *arXiv e-prints*, page arXiv:2602.17177, Feb. 2026, 2602.17177.

[17] Eleonora Bianchi, Mathilde Bouvier, Claudio Codella, Laura Colzi, Audrey Coutens, et al. Chemical Complexity in the Early Stages of Star Formation in the SKAO Era. *arXiv e-prints*, page arXiv:2606.27184, June 2026, 2606.27184.

[18] A. T. Barnes, K. Morii, J. E. Pineda, R. J. Parker, E. Schisano, et al. Projection effects in star-forming regions: I. Nearest-neighbour statistics and observational biases. *A&A*, 707:A145, Mar. 2026, 2601.20928.

[19] Doris Arzoumanian, Silvia Spezzano, Tommaso Grassi, Paola Caselli, Yusuke Tsukamoto, et al. Probing the ion-neutral drift velocity toward the L1544 prestellar core: Detection of ambipolar diffusion using N_2D^+ and para-NH_2D. *A&A*, 711:A105, July 2026, 2605.22541.

[20] Jessica Speedie, Ruobing Dong, Richard Teague, Dominique Segura-Cox, **Jaime E. Pineda**, et al. Mapping the Merging Zone of Late Infall in the AB Aur Planet-forming System. *ApJL*, 981(2):L30, Mar. 2025, 2503.01957.

[21] E. Redaelli, S. Spezzano, P. Caselli, J. Harju, D. Arzoumanian, et al. Hunting pre-stellar cores with APEX: Corona Australis 151, the densest pre-stellar core or the youngest protostar? *A&A*, 696:A171, Apr. 2025, 2502.13745.

[22] E. Redaelli, S. Bovino, G. Sabatini, D. Arzoumanian, M. Padovani, et al. Cosmic-ray ionisation rate in low-mass cores: The role of the environment. *A&A*, 702:A210, Oct. 2025, 2508.18848.

[23] Isaac C. Radley, Gemma Busquet, John D. Ilee, Hauyu Baobab Liu, **Jaime E. Pineda**, et al. Characterizing the Multiple Protostellar System VLA 1623-2417 with JWST, ALMA, and VLA: Outflow Origins, Dust Growth, and an Unsettled Disk. *ApJ*, 981(2):187, Mar. 2025, 2501.18348.

[24] J. J. Miranzo-Pastor, A. Fuente, D. Navarro-Almaida, J. E. Pineda, D. M. Segura-Cox, et al. PRODIGE ? envelope to disk with NOEMA: VI. The missing sulfur problem. *A&A*, 700:A251, Aug. 2025, 2507.05830.

[25] A. Martínez-Henares, I. Jiménez-Serra, C. Vastel, T. Sakai, L. Evans, et al. FAUST: XXV. A potential new molecular outflow in [BHB2007] 11. *A&A*, 699:A382, July 2025, 2505.13333.

[26] T.-H. Hsieh, J. E. Pineda, D. M. Segura-Cox, P. Caselli, M. J. Maureira, et al. Resolved gas temperatures and $^{12}C/^{13}C$ ratios in SVS13A from ALMA Observations of CH_3CN and $CH_3{}^{13}CN$. *A&A*, 696:A1, Apr. 2025, 2502.02873.

[27] Cheng-Han Hsieh, Héctor G. Arce, María José Maureira, **Jaime E. Pineda**, Dominique Segura-Cox, et al. CAMPOS: II. The onset of protostellar disk substructures and planet formation. *A&A*, 700:A235, Aug. 2025, 2504.11577.

[28] J. Harju, P. Caselli, O. Sipilä, S. Spezzano, A. Belloche, et al. Statistical nuclear spin ratios of deuterated ammonia in the pre-stellar core L1544. *A&A*, 700:A141, Aug. 2025, 2507.04825.

[29] C. Gieser, P. Caselli, D. M. Segura-Cox, J. E. Pineda, L. A. Busch, et al. ANTIHEROES-PRODIGE: Quantifying the connection from the envelope to the disk with the IRAM 30 m telescope and NOEMA: I. Infalling streamers in L1448N. *A&A*, 701:A165, Sept. 2025, 2507.16303.

[30] P. C. Cortés, J. E. Pineda, T.-H. Hsieh, J. J. Tobin, P. Saha, et al. First Results from ALPPS: A Sub-Alfvénic Streamer in SVS 13A. *ApJL*, 992(2):L31, Oct. 2025, 2509.21701.

[31] Spandan Choudhury, Jongsoo Kim, Paola Caselli, Chang Won Lee, and **Jaime E. Pineda**. Asymmetric accretion through a streamer onto the pre-stellar core H-MM1. *A&A*, 696:A190, Apr. 2025, 2503.21370.

[32] P. Caselli, S. Spezzano, E. Redaelli, J. Harju, D. Arzoumanian, et al. Hunting pre-stellar cores with APEX: Overview. *A&A*, 703:A77, Nov. 2025, 2509.00864.

[33] L. Cacciapuoti, L. Testi, A. J. Maury, C. J. Chandler, N. Sakai, et al. FAUST: XXVI. The dust opacity spectral indices of protostellar envelopes bridge the gap between interstellar medium and disks. *A&A*, 700:A188, Aug. 2025, 2506.06865.

[34] L. A. Busch, J. E. Pineda, O. Sipilä, D. M. Segura-Cox, P. Caselli, et al. PRODIGE ? envelope to disk with NOEMA: V. Low $^{12}C/^{13}C$ ratios for CH_3OH and CH_3CN in hot corinos. *A&A*, 699:A359, July 2025, 2505.21307.

[35] María Teresa Valdivia-Mena, **Jaime E. Pineda**, Paola Caselli, Dominique M. Segura-Cox, Anika Schmiedeke, et al. Probing the physics of star formation (ProPStar). II. The first systematic search for streamers toward protostars. *A&A*, 687:A71, July 2024, 2404.02144.

[36] Kotomi Taniguchi, **Jaime E. Pineda**, Paola Caselli, Tomomi Shimoikura, Rachel K. Friesen, Dominique M. Segura-Cox, and Anika Schmiedeke. The Reservoir of the Per-emb-2 Streamer. *ApJ*, 965(2):162, Apr. 2024, 2402.19099.

[37] G. Sabatini, L. Podio, C. Codella, Y. Watanabe, M. De Simone, et al. FAUST. XIII. Dusty cavity and molecular shock driven by IRS7B in the Corona Australis cluster. *A&A*, 684:L12, Apr. 2024, 2403.18108.

[38] L. Podio, C. Ceccarelli, C. Codella, G. Sabatini, D. Segura-Cox, et al. FAUST. XVII. Super deuteration in the planet-forming system IRS 63 where the streamer strikes the disk. *A&A*, 688:L22, Aug. 2024, 2407.04813.

[39] **Jaime E. Pineda**, Juan D. Soler, Stella Offner, Eric W. Koch, Dominique M. Segura-Cox, et al. Probing the physics of star formation (ProPStar): III. No evidence of dissipation of turbulence down to 20 mpc (4000 au) scale. *A&A*, 690:L5, Oct. 2024, 2409.00392.

[40] **Jaime E. Pineda**, Olli Sipilä, Dominique M. Segura-Cox, Maria Teresa Valdivia-Mena, Roberto Neri, et al. Probing the physics of star formation (ProPStar). I. First

resolved maps of the electron fraction and cosmic-ray ionization rate in NGC 1333. *A&A*, 686:A162, June 2024, 2402.16202.

[41] I. V. Petrashkevich, A. F. Punanova, P. Caselli, O. Sipilä, J. E. Pineda, et al. Deuterium fractionation in cold dense cores in the low-mass star-forming region L1688. *MNRAS*, 528(2):1327–1353, Feb. 2024, 2401.04415.

[42] M. J. Maureira, J. E. Pineda, H. B. Liu, L. Testi, D. Segura-Cox, et al. FAUST: XVIII. Evidence of annular substructure in a very young Class 0 disk. *A&A*, 689:L5, Sept. 2024, 2407.20074.

[43] M. Kuffmeier, J. E. Pineda, D. Segura-Cox, and T. Haugbølle. Constraints on the primordial misalignment of star-disk systems. *A&A*, 690:A297, Oct. 2024, 2405.12670.

[44] T.-H. Hsieh, J. E. Pineda, D. M. Segura-Cox, P. Caselli, M. T. Valdivia-Mena, et al. PRODIGE - envelope to disk with NOEMA. III. The origin of complex organic molecule emission in SVS13A. *A&A*, 686:A289, June 2024, 2403.16892.

[45] Cheng-Han Hsieh, Héctor G. Arce, María José Maureira, **Jaime E. Pineda**, Dominique Segura-Cox, et al. The ALMA Legacy Survey of Class 0/I Disks in Corona australis, Aquila, chaMaeleon, oPhiuchus north, Ophiuchus, Serpens (CAMPOS). I. Evolution of Protostellar Disk Radii. *ApJ*, 973(2):138, Oct. 2024, 2404.02809.

[46] J. Harju, C. Vastel, O. Sipilä, E. Redaelli, P. Caselli, et al. A low cosmic-ray ionisation rate in the pre-stellar core Ophiuchus/H-MM1. Mapping of the molecular ions ortho-H_2D^+, N_2H^+, and DCO^+. *A&A*, 688:A117, Aug. 2024, 2405.20004.

[47] J. Harju, J. E. Pineda, O. Sipilä, P. Caselli, A. Belloche, et al. Nuclear spin ratios of deuterated ammonia in prestellar cores. LAsMA observations of H-MM1 and Oph D. *A&A*, 682:A8, Feb. 2024, 2311.08006.

[48] A. S. Hales, A. Gupta, D. Ruíz-Rodríguez, J. P. Williams, S. Pérez, et al. Discovery of an Accretion Streamer and a Slow Wide-angle Outflow around FU Orionis. *ApJ*, 966(1):96, May 2024, 2405.03033.

[49] C. Gieser, J. E. Pineda, D. M. Segura-Cox, P. Caselli, M. T. Valdivia-Mena, et al. PRODIGE ? envelope to disk with NOEMA: IV. An infalling gas bridge surrounding two Class 0/I systems in L1448N. *A&A*, 692:A55, Dec. 2024, 2410.18941.

[50] Rachel K. Friesen, Tyler L. Bourke, Paola Caselli, James Di Francesco, Zhi-Yun Li, and **Jaime E. Pineda**. The Initial Conditions of Clustered Core Collapse: Multiwavelength Analysis of Oph A SM1N and N6 at 100 au Resolution. *ApJ*, 965(2):165, Apr. 2024.

[51] C. Codella, L. Podio, M. De Simone, C. Ceccarelli, S. Ohashi, et al. FAUST XII. Accretion streamers and jets in the VLA 1623-2417 protocluster. *MNRAS*, 528(4):7383–7396, Mar. 2024, 2402.10258.

[52] Spandan Choudhury, **Jaime E. Pineda**, Paola Caselli, Michael Chun-Yuan Chen, Stella S. R. Offner, and Maria Teresa Valdivia-Mena. Infall of material onto the filaments in Barnard 5. *A&A*, 683:A77, Mar. 2024, 2312.17398.

[53] Michael Chun-Yuan Chen, James Di Francesco, Rachel K. Friesen, **Jaime E. Pineda**, Paola Caselli, et al. Filament Accretion and Fragmentation in the Perseus Molecular Cloud. *ApJ*, 977(1):135, Dec. 2024, 2410.16372.

[54] Che-Yu Chen, Rachel Friesen, Jialu Li, Anika Schmiedeke, David Frayer, et al. Dynamics in Star-forming Cores (DiSCo): project overview and the first look towards the B1 and NGC 1333 regions in Perseus. *MNRAS*, 527(4):10279–10293, Feb. 2024, 2312.12504.

[55] L. Beitia-Antero, A. Fuente, D. Navarro-Almaida, A. I. Gómez de Castro, V. Wakelam, et al. Gas phase Elemental abundances in Molecular cloudS (GEMS). X. Observational effects of turbulence on the chemistry of molecular clouds. *A&A*, 688:A188, Aug. 2024, 2410.04226.

[56] M. T. Valdivia-Mena, J. E. Pineda, D. M. Segura-Cox, P. Caselli, A. Schmiedeke, et al. Flow of gas detected from beyond the filaments to protostellar scales in Barnard 5? *A&A*, 677:A92, Sept. 2023, 2307.14337.

[57] Simon E. T. Smith, Rachel Friesen, Antoine Marchal, **Jaime E. Pineda**, Paola Caselli, et al. Velocity-coherent substructure in TMC-1: inflow and fragmentation. *MNRAS*, 519(1):285–299, Feb. 2023, 2211.10535.

[58] E. Redaelli, L. Bizzocchi, P. Caselli, and J. E. Pineda. Nitrogen fractionation in ammonia and its insights into nitrogen chemistry. *A&A*, 674:L8, June 2023, 2305.18289.

[59] J. E. Pineda, D. Arzoumanian, P. Andre, R. K. Friesen, A. Zavagno, et al. From Bubbles and Filaments to Cores and Disks: Gas Gathering and Growth of Structure Leading to the Formation of Stellar Systems. In S. Inutsuka, Y. Aikawa, T. Muto, K. Tomida, and M. Tamura, editors, *Protostars and Planets VII*, volume 534 of *Astronomical Society of the Pacific Conference Series*, page 233, July 2023, 2205.03935.

[60] A. Pandhi, R. K. Friesen, L. Fissel, J. E. Pineda, P. Caselli, et al. Alignment of dense molecular core morphology and velocity gradients with ambient magnetic fields. *MNRAS*, 525(1):364–392, Oct. 2023, 2307.13022.

[61] S. Mercimek, L. Podio, C. Codella, L. Chahine, A. López-Sepulcre, et al. FAUST - VIII. The protostellar disc of VLA 1623-2417W and its streamers imaged by ALMA. *MNRAS*, 522(2):2384–2392, June 2023, 2303.16257.

[62] Y. Lin, S. Spezzano, J. E. Pineda, J. Harju, A. Schmiedeke, et al. Initial conditions of star formation at <2000 au: Physical structure and NH_3 depletion of three early-stage cores. *A&A*, 680:A43, Dec. 2023, 2308.12835.

[63] T.-H. Hsieh, D. M. Segura-Cox, J. E. Pineda, P. Caselli, L. Bouscasse, et al. PRODIGE - envelope to disk with NOEMA. II. Small-scale temperature structure and streamer feeding the SVS13A protobinary based on CH_3CN and DCN. *A&A*, 669:A137, Jan. 2023, 2211.05022.

[64] K. Giers, S. Spezzano, P. Caselli, E. Wirström, O. Sipilä, et al. Similar levels of deuteration in the pre-stellar core L1544 and the protostellar core HH211. *A&A*, 676:A78, Aug. 2023, 2306.12775.

[65] L. Evans, C. Vastel, F. Fontani, J. E. Pineda, I. Jiménez-Serra, et al. FAUST. X. Formaldehyde in the protobinary system [BHB2007] 11: Small-scale deuteration. *A&A*, 678:A160, Oct. 2023, 2309.00501.

[66] M. T. Valdivia-Mena, **Jaime E. Pineda**, D. M. Segura-Cox, P. Caselli, R. Neri, et al. PRODIGE - envelope to disk with NOEMA. I. A 3000 au streamer feeding a Class I protostar. *A&A*, 667:A12, Nov. 2022, 2208.01023.

[67] Elena Redaelli, Ana Chacón-Tanarro, Paola Caselli, Mario Tafalla, **Jaime E. Pineda**, Silvia Spezzano, and Olli Sipilä. A Large ($\approx$ 1 pc) Contracting Envelope Around the Prestellar Core L1544. *ApJ*, 941(2):168, Dec. 2022, 2210.13571.

[68] **Jaime E. Pineda**, Jorma Harju, Paola Caselli, Olli Sipilä, Mika Juvela, et al. An Interferometric View of H-MM1. I. Direct Observation of NH_3 Depletion. *AJ*, 163(6):294, June 2022, 2205.01201.

[69] Stella S. R. Offner, Josh Taylor, Carleen Markey, Hope How-Huan Chen, **Jaime E. Pineda**, et al. Turbulence, coherence, and collapse: Three phases for core evolution. *MNRAS*, 517(1):885–909, Nov. 2022.

[70] María José Maureira, Munan Gong, **Jaime E. Pineda**, Hauyu Baobab Liu, Kedron Silsbee, et al. Dust Hot Spots at 10 au Scales around the Class 0 Binary IRAS 16293-2422 A: A Departure from the Passive Irradiation Model. *ApJL*, 941(2):L23, Dec. 2022, 2212.08436.

[71] T. H. Hsieh, D. M. Segura-Cox, J. E. Pineda, P. Caselli, L. Bouscasse, et al. PRODIGE – Envelope to Disk with NOEMA II. Small-scale temperature structure and a streamer feeding the SVS13A protobinary using CH3CN and DCN. *arXiv e-prints*, page arXiv:2211.05022, Nov. 2022, 2211.05022.

[72] Adam Ginsburg, Vlas Sokolov, Miguel de Val-Borro, Erik Rosolowsky, **Jaime E. Pineda**, Brigitta M. Sipőcz, and Jonathan D. Henshaw. Pyspeckit: A Spectroscopic Analysis and Plotting Package. *AJ*, 163(6):291, June 2022, 2205.04987.

[73] A. Garufi, L. Podio, C. Codella, D. Segura-Cox, M. Vander Donckt, et al. ALMA chemical survey of disk-outflow sources in Taurus (ALMA-DOT). VI. Accretion shocks in the disk of DG Tau and HL Tau. *A&A*, 658:A104, Feb. 2022, 2110.13820.

[74] Marta De Simone, Claudio Codella, Cecilia Ceccarelli, Ana López-Sepulcre, Roberto Neri, et al. A train of shocks at 3000-au scale? Exploring the clash of an expanding bubble into the NGC 1333 IRAS 4 region. SOLIS XIV. *MNRAS*, 512(4):5214–5227, June 2022, 2201.03434.

[75] Michael Chun-Yuan Chen, James Di Francesco, **Jaime E. Pineda**, Stella S. R. Offner, and Rachel K. Friesen. Turbulence and Accretion: A High-resolution Study of the B5 Filaments. *ApJ*, 935(1):57, Aug. 2022, 2209.00659.

[76] Paola Caselli, **Jaime E. Pineda**, Olli Sipilä, Bo Zhao, Elena Redaelli, et al. The Central 1000 au of a Prestellar Core Revealed with ALMA. II. Almost Complete Freeze-out. *ApJ*, 929(1):13, Apr. 2022, 2202.13374.

[77] Stephanie Spear, María José Maureira, Héctor G. Arce, **Jaime E. Pineda**, Michael Dunham, Paola Caselli, and Dominique Segura-Cox. VLA and NOEMA Views of Bok Globule CB 17: The Starless Nature of a Proposed First Hydrostatic Core Candidate. *ApJ*, 923(2):231, Dec. 2021, 2111.01217.

[78] Ayushi Singh, Christopher D. Matzner, Rachel K. Friesen, Peter G. Martin, **Jaime E. Pineda**, et al. Are Massive Dense Clumps Truly Subvirial? A New Analysis Using Gould Belt Ammonia Data. *ApJ*, 922(1):87, Nov. 2021, 2108.05367.

[79] Anika Schmiedeke, **Jaime E. Pineda**, Paola Caselli, Héctor G. Arce, Gary A. Fuller, et al. Dissecting the Supercritical Filaments Embedded in the 0.5 pc Subsonic Region of Barnard 5. *ApJ*, 909(1):60, Mar. 2021, 2101.00248.

[80] **Jaime E. Pineda**, Anika Schmiedeke, Paola Caselli, Steven W. Stahler, David T. Frayer, Sarah E. Church, and Andrew I. Harris. Neutral versus Ion Line Widths in Barnard 5: Evidence for Penetration by Magnetohydrodynamic Waves. *ApJ*, 912(1):7, May 2021, 2104.12411.

[81] F. Fontani, A. T. Barnes, P. Caselli, J. D. Henshaw, G. Cosentino, et al. ALMA-IRDC - II. First high-angular resolution measurements of the $^{14}N/^{15}N$ ratio in a large sample of infrared-dark cloud cores. *MNRAS*, 503(3):4320–4335, May 2021, 2103.09123.

[82] Spandan Choudhury, **Jaime E. Pineda**, Paola Caselli, Stella S. R. Offner, Erik Rosolowsky, et al. Transition from coherent cores to surrounding cloud in L1688. *A&A*, 648:A114, Apr. 2021, 2102.06459.

[83] A. T. Barnes, J. D. Henshaw, F. Fontani, **Jaime E. Pineda**, G. Cosentino, et al. ALMA-IRDC: dense gas mass distribution from cloud to core scales. *MNRAS*, 503(3):4601–4626, May 2021, 2103.09122.

[84] A. Avison, G. A. Fuller, N. Peretto, A. Duarte-Cabral, A. L. Rosen, et al. Continuity of accretion from clumps to Class 0 high-mass protostars in SDC335. *A&A*, 645:A142, Jan. 2021, 2012.08948.

[85] V. Taquet, C. Codella, M. De Simone, A. López-Sepulcre, **Jaime E. Pineda**, et al. Seeds of Life in Space (SOLIS). VI. Chemical evolution of sulfuretted species along the outflows driven by the low-mass protostellar binary NGC 1333-IRAS4A. *A&A*, 637:A63, May 2020, 2002.05480.

[86] S. Spezzano, P. Caselli, **Jaime E. Pineda**, L. Bizzocchi, D. Prudenzano, and Z. Nagy. Distribution of methanol and cyclopropenylidene around starless cores. *A&A*, 643:A60, Nov. 2020, 2009.04768.

[87] Vlas Sokolov, **Jaime E. Pineda**, Johannes Buchner, and Paola Caselli. Probabilistic Detection of Spectral Line Components. *ApJL*, 892(2):L32, Apr. 2020, 2003.07644.

[88] Dominique M. Segura-Cox, Anika Schmiedeke, **Jaime E. Pineda**, Ian W. Stephens, Manuel Fernández-López, et al. Four annular structures in a protostellar disk less than 500,000 years old. *Nature*, 586(7828):228–231, Oct. 2020, 2010.03657.

[89] **Jaime E. Pineda**, Dominique Segura-Cox, Paola Caselli, Nichol Cunningham, Bo Zhao, et al. A protostellar system fed by a streamer of 10,500 au length. *Nature Astronomy*, 4:1158–1163, Jan. 2020, 2007.13430.

[90] I. V. Petrashkevich, A. F. Punanova, P. Caselli, **Jaime E. Pineda**, A. Pon, and R. Friesen. Deuterium Fractionation in the Oph-H-MM1 Dense Core of the L1688 Low Mass Star-Forming Region. *Astronomy Reports*, 64(8):637–640, Aug. 2020.

[91] Maria Jose Maureira, **Jaime E. Pineda**, Dominique M. Segura-Cox, Paola Caselli, Leonardo Testi, et al. Orbital and mass constraints of the young binary system IRAS 16293-2422 A. *ApJ*, May 2020, 2005.11954.

[92] María José Maureira, Héctor G. Arce, Michael M. Dunham, Diego Mardones, Andrés E. Guzmán, **Jaime E. Pineda**, and Tyler L. Bourke. ALMA observations of envelopes around first hydrostatic core candidates. *MNRAS*, 499(3):4394–4417, Dec. 2020, 2009.08740.

[93] Jorma Harju, **Jaime E. Pineda**, Anton I. Vasyunin, Paola Caselli, Stella S. R. Offner, et al. Efficient Methanol Production on the Dark Side of a Prestellar Core. *ApJ*, 895(2):101, June 2020, 1903.11298.

[94] M. De Simone, C. Codella, C. Ceccarelli, A. López-Sepulcre, A. Witzel, et al. Seeds of Life in Space (SOLIS). X. Interstellar complex organic molecules in the NGC 1333 IRAS 4A outflows. *A&A*, 640:A75, Aug. 2020, 2006.09925.

[95] Spandan Choudhury, **Jaime E. Pineda**, Paola Caselli, Adam Ginsburg, Stella S. R. Offner, et al. Ubiquitous NH_3 supersonic component in L1688 coherent cores. *A&A*, 640:L6, Aug. 2020, 2007.07149.

[96] Michael Chun-Yuan Chen, James Di Francesco, Erik Rosolowsky, Jared Keown, **Jaime E. Pineda**, et al. Velocity-coherent Filaments in NGC 1333: Evidence for Accretion Flow? *ApJ*, 891(1):84, Mar. 2020, 2002.11736.

[97] Che-Yu Chen, Erica A. Behrens, Jasmin E. Washington, Laura M. Fissel, Rachel K. Friesen, et al. Relative alignment between dense molecular cores and ambient magnetic field: the synergy of numerical models and observations. *MNRAS*, 494(2):1971–1987, Mar. 2020, 2003.11033.

[98] Ian W. Stephens, Tyler L. Bourke, Michael M. Dunham, Philip C. Myers, Riwaj Pokhrel, et al. Mass Assembly of Stellar Systems and Their Evolution with the SMA (MASSES)—Full Data Release. *ApJS*, 245(2):21, Dec. 2019, 1911.08496.

[99] Vlas Sokolov, Ke Wang, **Jaime E. Pineda**, Paola Caselli, Jonathan D. Henshaw, et al. Multicomponent Kinematics in a Massive Filamentary Infrared Dark Cloud. *ApJ*, 872(1):30, Feb. 2019, 1812.09581.

[100] **Jaime E. Pineda**, Bo Zhao, Anika Schmiedeke, Dominique M. Segura-Cox, Paola Caselli, et al. The Specific Angular Momentum Radial Profile in Dense Cores: Improved Initial Conditions for Disk Formation. *ApJ*, 882(2):103, Sept. 2019, 1906.05578.

[101] **Jaime E. Pineda**, Judit Szulágyi, Sascha P. Quanz, Ewine F. van Dishoeck, Antonio Garufi, et al. High-resolution ALMA Observations of HD 100546: Asymmetric Circumstellar Ring and Circumplanetary Disk Upper Limits. *ApJ*, 871(1):48, Jan. 2019, 1811.10365.

[102] Ronan Kerr, Helen Kirk, James Di Francesco, Jared Keown, Mike Chen, et al. The Green Bank Ammonia Survey: A Virial Analysis of Gould Belt Clouds in Data Release 1. *ApJ*, 874(2):147, Apr. 2019, 1903.03696.

[103] Hope How-Huan Chen, **Jaime E. Pineda**, Stella S. R. Offner, Alyssa A. Goodman, Andreas Burkert, et al. Droplets. II. Internal Velocity Structures and Potential Rotational Motions in Pressure-dominated Coherent Structures. *ApJ*, 886(2):119, Dec. 2019, 1908.04367.

[104] Hope How-Huan Chen, **Jaime E. Pineda**, Alyssa A. Goodman, Andreas Burkert, Stella S. R. Offner, et al. Droplets. I. Pressure-dominated Coherent Structures in L1688 and B18. *ApJ*, 877(2):93, June 2019, 1809.10223.

[105] Che-Yu Chen, Shaye Storm, Zhi-Yun Li, Lee G. Mundy, David Frayer, et al. Investigating the complex velocity structures within dense molecular cloud cores with GBT-Argus. *MNRAS*, 490(1):527–539, Nov. 2019, 1909.07997.

[106] A. Chacón-Tanarro, **Jaime E. Pineda**, P. Caselli, L. Bizzocchi, R. A. Gutermuth, et al. Dust opacity variations in the pre-stellar core L1544. *A&A*, 623:A118, Mar. 2019, 1901.02476.

[107] A. Chacón-Tanarro, P. Caselli, L. Bizzocchi, **Jaime E. Pineda**, O. Sipilä, et al. Mapping deuterated methanol toward L1544. I. Deuterium fraction and comparison with modeling. *A&A*, 622:A141, Feb. 2019, 1808.09871.

[108] Paola Caselli, **Jaime E. Pineda**, Bo Zhao, Malcolm C. Walmsley, Eric Keto, et al. The Central 1000 au of a Pre-stellar Core Revealed with ALMA. I. 1.3 mm Continuum Observations. *ApJ*, 874(1):89, Mar. 2019, 1902.05299.

[109] Sayantan Auddy, Philip C. Myers, Shantanu Basu, Jorma Harju, **Jaime E. Pineda**, and Rachel K. Friesen. Magnetic Field Structure of Dense Cores Using Spectroscopic Methods. *ApJ*, 872(2):207, Feb. 2019, 1901.09537.

[110] C. Agurto-Gangas, **Jaime E. Pineda**, L. Szűcs, L. Testi, M. Tazzari, et al. Revealing the dust grain size in the inner envelope of the Class I protostar Per-emb-50. *A&A*, 623:A147, Mar. 2019, 1901.05021.

[111] A. Traficante, G. A. Fuller, R. J. Smith, N. Billot, A. Duarte-Cabral, et al. Massive 70 μm quiet clumps - II. Non-thermal motions driven by gravity in massive star formation? *MNRAS*, 473(4):4975–4985, Feb. 2018, 1710.04904.

[112] Ian W. Stephens, Michael M. Dunham, Philip C. Myers, Riwaj Pokhrel, Tyler L. Bourke, et al. Mass Assembly of Stellar Systems and Their Evolution with the SMA (MASSES)—1.3 mm Subcompact Data Release. *ApJS*, 237(2):22, Aug. 2018, 1806.07397.

[113] Vlas Sokolov, Ke Wang, **Jaime E. Pineda**, Paola Caselli, Jonathan D. Henshaw, et al. Subsonic islands within a high-mass star-forming infrared dark cloud. *A&A*, 611:L3, Mar. 2018, 1802.07043.

[114] A. Punanova, P. Caselli, **Jaime E. Pineda**, A. Pon, M. Tafalla, A. Hacar, and L. Bizzocchi. Kinematics of dense gas in the L1495 filament. *A&A*, 617:A27, Sept. 2018, 1806.03354.

[115] Anna Punanova, Paola Caselli, Siyi Feng, Ana Chacón-Tanarro, Cecilia Ceccarelli, et al. Seeds of Life in Space (SOLIS). III. Zooming Into the Methanol Peak of the Prestellar Core L1544. *ApJ*, 855(2):112, Mar. 2018, 1802.00859.

[116] Kristina Monsch, **Jaime E. Pineda**, Hauyu Baobab Liu, Catherine Zucker, Hope How-Huan Chen, et al. Dense Gas Kinematics and a Narrow Filament in the Orion A OMC1 Region Using NH_3. *ApJ*, 861(2):77, July 2018, 1806.01847.

[117] Shuo Kong, Héctor G. Arce, Jesse R. Feddersen, John M. Carpenter, Fumitaka Nakamura, et al. The CARMA-NRO Orion Survey. *ApJS*, 236(2):25, June 2018, 1803.11522.

[118] Adam Ginsburg, John Bally, Ashley Barnes, Nate Bastian, Cara Battersby, et al. Distributed Star Formation throughout the Galactic Center Cloud Sgr B2. *ApJ*, 853(2):171, Feb. 2018, 1801.04941.

[119] R. K. Friesen, A. Pon, T. L. Bourke, P. Caselli, J. Di Francesco, J. K. Jørgensen, and **Jaime E. Pineda**. ALMA Detections of the Youngest Protostars in Ophiuchus. *ApJ*, 869(2):158, Dec. 2018, 1811.03976.

[120] Ian W. Stephens, Michael M. Dunham, Philip C. Myers, Riwaj Pokhrel, Sarah I. Sadavoy, et al. Alignment between Protostellar Outflows and Filamentary Structure. *ApJ*, 846(1):16, Sept. 2017, 1707.08122.

[121] Vlas Sokolov, Ke Wang, **Jaime E. Pineda**, Paola Caselli, Jonathan D. Henshaw, et al. Temperature structure and kinematics of the IRDC G035.39-00.33. *A&A*, 606:A133, Oct. 2017, 1706.08903.

[122] Marta Sewiło, Jennifer Wiseman, Remy Indebetouw, Steven B. Charnley, **Jaime E. Pineda**, Johan E. Lindberg, and Sheng-Li Qin. Very Large Array Ammonia Observations of the HH 111/HH 121 Protostellar System: A Detection of a New Source with a Peculiar Chemistry. *ApJ*, 849(1):68, Nov. 2017, 1709.04856.

[123] E. Redaelli, F. O. Alves, P. Caselli, **Jaime E. Pineda**, R. K. Friesen, et al. The Green Bank Ammonia Survey: Unveiling the Dynamics of the Barnard 59 Star-forming Clump. *ApJ*, 850(2):202, Dec. 2017, 1711.01794.

[124] María José Maureira, Héctor G. Arce, Stella S. R. Offner, Michael M. Dunham, **Jaime E. Pineda**, et al. A Turbulent Origin for the Complex Envelope Kinematics in the Young Low-mass Core Per-bolo 58. *ApJ*, 849(2):89, Nov. 2017, 1710.02506.

[125] María José Maureira, Héctor G. Arce, Michael M. Dunham, **Jaime E. Pineda**, Manuel Fernández-López, Xuepeng Chen, and Diego Mardones. Kinematics of a Young Low-mass

Star-forming Core: Understanding the Evolutionary State of the First-core Candidate L1451-mm. *ApJ*, 838(1):60, Mar. 2017, 1612.01581.

[126] L. T. Maud, M. G. Hoare, R. Galván-Madrid, Q. Zhang, W. J. de Wit, et al. The ALMA view of W33A: a spiral filament feeding the candidate disc in MM1-Main. *MNRAS*, 467(1):L120–L124, May 2017, 1701.06958.

[127] Helen Kirk, Rachel K. Friesen, **Jaime E. Pineda**, Erik Rosolowsky, Stella S. R. Offner, et al. The Green Bank Ammonia Survey: Dense Cores under Pressure in Orion A. *ApJ*, 846(2):144, Sept. 2017, 1708.05426.

[128] H. Kirk, M. M. Dunham, J. Di Francesco, D. Johnstone, S. S. R. Offner, et al. ALMA Observations of Starless Core Substructure in Ophiuchus. *ApJ*, 838(2):114, Apr. 2017, 1703.00506.

[129] Jared Keown, James Di Francesco, Helen Kirk, Rachel K. Friesen, **Jaime E. Pineda**, et al. The Green Bank Ammonia Survey: Observations of Hierarchical Dense Gas Structures in Cepheus-L1251. *ApJ*, 850(1):3, Nov. 2017, 1710.04785.

[130] J. D. Henshaw, I. Jiménez-Serra, S. N. Longmore, P. Caselli, **Jaime E. Pineda**, et al. Unveiling the early-stage anatomy of a protocluster hub with ALMA. *MNRAS*, 464(1):L31–L35, Jan. 2017, 1608.00009.

[131] J. Harju, F. Daniel, O. Sipilä, P. Caselli, **Jaime E. Pineda**, et al. Deuteration of ammonia in the starless core Ophiuchus/H-MM1. *A&A*, 600:A61, Apr. 2017, 1604.05602.

[132] Rachel K. Friesen, **Jaime E. Pineda**, co-PIs, Erik Rosolowsky, Felipe Alves, et al. The Green Bank Ammonia Survey: First Results of NH_3 Mapping of the Gould Belt. *ApJ*, 843(1):63, July 2017, 1704.06318.

[133] F. Fontani, C. Ceccarelli, C. Favre, P. Caselli, R. Neri, et al. Seeds of Life in Space (SOLIS). I. Carbon-chain growth in the Solar-type protocluster OMC2-FIR4. *A&A*, 605:A57, Sept. 2017, 1707.01384.

[134] C. Codella, C. Ceccarelli, P. Caselli, N. Balucani, V. Barone, et al. Seeds of Life in Space (SOLIS). II. Formamide in protostellar shocks: Evidence for gas-phase formation. *A&A*, 605:L3, Sept. 2017, 1708.04663.

[135] A. Chacón-Tanarro, P. Caselli, L. Bizzocchi, **Jaime E. Pineda**, J. Harju, M. Spaans, and F. X. Désert. Search for grain growth toward the center of L1544. *A&A*, 606:A142, Oct. 2017, 1707.00005.

[136] C. Ceccarelli, P. Caselli, F. Fontani, R. Neri, A. López-Sepulcre, et al. Seeds Of Life In Space (SOLIS): The Organic Composition Diversity at 300-1000 au Scale in Solar-type Star-forming Regions. *ApJ*, 850(2):176, Dec. 2017, 1710.10437.

[137] Kamen O. Todorov, Michael R. Line, **Jaime E. Pineda**, Michael R. Meyer, Sascha P. Quanz, Sasha Hinkley, and Jonathan J. Fortney. The Water Abundance of the Directly Imaged Substellar Companion κ And b Retrieved from a Near Infrared Spectrum. *ApJ*, 823(1):14, May 2016, 1504.00217.

[138] Lucio Mayer, Thomas Peters, **Jaime E. Pineda**, James Wadsley, and Patrick Rogers. Direct Detection of Precursors of Gas Giants Formed by Gravitational Instability with the Atacama Large Millimeter/submillimeter Array. *ApJL*, 823(2):L36, June 2016, 1602.04827.

[139] S. Mairs, D. Johnstone, H. Kirk, J. Buckle, D. S. Berry, et al. The JCMT Gould Belt Survey: a first look at Southern Orion A with SCUBA-2. *MNRAS*, 461(4):4022–4048, Oct. 2016, 1606.08854.

[140] Yuxin Lin, Hauyu Baobab Liu, Di Li, Zhi-Yu Zhang, Adam Ginsburg, et al. Cloud Structure of Galactic OB Cluster-forming Regions from Combining Ground- and Space-based Bolometric Observations. *ApJ*, 828(1):32, Sept. 2016, 1606.07645.

[141] Katherine I. Lee, Michael M. Dunham, Philip C. Myers, Héctor G. Arce, Tyler L. Bourke, et al. Misalignment of Outflow Axes in the Proto-multiple Systems in Perseus. *ApJL*, 820(1):L2, Mar. 2016, 1602.07397.

[142] Matias Lackington, Gary A. Fuller, **Jaime E. Pineda**, Guido Garay, Nicolas Peretto, and Alessio Traficante. Deuteration in infrared dark clouds. *MNRAS*, 455(1):806–819, Jan. 2016, 1512.00422.

[143] H. Kirk, D. Johnstone, J. Di Francesco, J. Lane, J. Buckle, et al. The JCMT Gould Belt Survey: Dense Core Clusters in Orion B. *ApJ*, 821(2):98, Apr. 2016, 1602.00707.

[144] J. D. Henshaw, P. Caselli, F. Fontani, I. Jiménez-Serra, J. C. Tan, et al. Investigating the structure and fragmentation of a highly filamentary IRDC. *MNRAS*, 463(1):146–169, Nov. 2016, 1607.07452.

[145] Michael M. Dunham, Stella S. R. Offner, **Jaime E. Pineda**, Tyler L. Bourke, John J. Tobin, et al. An ALMA Search for Substructure, Fragmentation, and Hidden Protostars in Starless Cores in Chamaeleon I. *ApJ*, 823(2):160, June 2016, 1604.04027.

[146] F. Daniel, L. H. Coudert, A. Punanova, J. Harju, A. Faure, et al. The NH_2D hyperfine structure revealed by astrophysical observations. *A&A*, 586:L4, Feb. 2016, 1601.00162.

[147] Michael Chun-Yuan Chen, J. Di Francesco, D. Johnstone, S. Sadavoy, J. Hatchell, et al. The JCMT Gould Belt Survey: Evidence for Dust Grain Evolution in Perseus Star-forming Clumps. *ApJ*, 826(1):95, July 2016, 1605.06136.

[148] J. L. Campbell, R. K. Friesen, P. G. Martin, P. Caselli, J. Kauffmann, and **Jaime E. Pineda**. Contraction Signatures toward Dense Cores in the Perseus Molecular Cloud. *ApJ*, 819(2):143, Mar. 2016, 1601.07165.

[149] A. Traficante, G. A. Fuller, **Jaime E. Pineda**, and S. Pezzuto. Hyper: Hybrid photometry and extraction routine. *A&A*, 574:A119, Feb. 2015, 1410.7293.

[150] A. Traficante, G. A. Fuller, N. Peretto, **Jaime E. Pineda**, and S. Molinari. The initial conditions of stellar protocluster formation - II. A catalogue of starless and protostellar clumps embedded in IRDCs in the Galactic longitude range $15° \leq l \leq 55°$. *MNRAS*, 451(3):3089–3106, Aug. 2015, 1506.05472.

[151] C. J. Salji, J. S. Richer, J. V. Buckle, J. Hatchell, H. Kirk, et al. The JCMT Gould Belt Survey: constraints on prestellar core properties in Orion A North. *MNRAS*, 449(2):1769–1781, May 2015.

[152] D. Rumble, J. Hatchell, R. A. Gutermuth, H. Kirk, J. Buckle, et al. The JCMT Gould Belt Survey: evidence for radiative heating in Serpens MWC 297 and its influence on local star formation. *MNRAS*, 448(2):1551–1573, Apr. 2015, 1412.5965.

[153] **Jaime E. Pineda**, Stella S. R. Offner, Richard J. Parker, Héctor G. Arce, Alyssa A. Goodman, et al. The formation of a quadruple star system with wide separation. *Nature*, 518(7538):213–215, Feb. 2015.

[154] K. Pattle, D. Ward-Thompson, J. M. Kirk, G. J. White, E. Drabek-Maunder, et al. The JCMT Gould Belt Survey: first results from the SCUBA-2 observations of the Ophiuchus molecular cloud and a virial analysis of its prestellar core population. *MNRAS*, 450(1):1094–1122, June 2015, 1502.05858.

[155] S. Mairs, D. Johnstone, H. Kirk, S. Graves, J. Buckle, et al. The JCMT Gould Belt Survey: a quantitative comparison between SCUBA-2 data reduction methods. *MNRAS*, 454(3):2557–2579, Dec. 2015, 1509.06385.

[156] Katherine I. Lee, Michael M. Dunham, Philip C. Myers, John J. Tobin, Lars E. Kristensen, et al. Mass Assembly of Stellar Systems and Their Evolution with the SMA (MASSES). Multiplicity and the Physical Environment in L1448N. *ApJ*, 814(2):114, Dec. 2015, 1511.01141.

[157] Guido Garay, Diego Mardones, Yanett Contreras, **Jaime E. Pineda**, Elise Servajean, and Andrés E. Guzmán. G305.136+0.068: A Massive and Dense Cold Core in an Early Stage of Evolution. *ApJ*, 799(1):75, Jan. 2015, 1411.5637.

[158] J. V. Buckle, E. Drabek-Maunder, J. Greaves, J. S. Richer, B. C. Matthews, et al. The JCMT Gould Belt Survey: SCUBA-2 observations of circumstellar discs in L 1495. *MNRAS*, 449(3):2472–2488, May 2015, 1502.07946.

[159] A. Avison, N. Peretto, G. A. Fuller, A. Duarte-Cabral, A. Traficante, and **Jaime E. Pineda**. Tightening the belt: Constraining the mass and evolution in SDC335. *A&A*, 577:A30, May 2015, 1501.04638.

[160] Luis A. Zapata, Héctor G. Arce, Erin Brassfield, Aina Palau, Nimesh Patel, and **Jaime E. Pineda**. A spider-like outflow in Barnard 5 - IRS 1: the transition from a collimated jet to a wide-angle outflow? *MNRAS*, 441(4):3696–3702, July 2014, 1404.6147.

[161] **Jaime E. Pineda**, Sascha P. Quanz, Farzana Meru, Gijs D. Mulders, Michael R. Meyer, Olja Panić, and Henning Avenhaus. Resolved Images of the Protoplanetary Disk around HD 100546 with ALMA. *ApJL*, 788(2):L34, June 2014, 1405.5773.

[162] Farzana Meru, Sascha P. Quanz, Maddalena Reggiani, Clement Baruteau, and **Jaime E. Pineda**. Long-lasting dust rings in gas-rich disks: sculpting by single and multiple planets. *arXiv e-prints*, page arXiv:1411.5366, Nov. 2014, 1411.5366.

[163] R. K. Friesen, J. Di Francesco, T. L. Bourke, P. Caselli, J. K. Jørgensen, **Jaime E. Pineda**, and M. Wong. Revealing H_2D^+ Depletion and Compact Structure in Starless and Protostellar Cores with ALMA. *ApJ*, 797(1):27, Dec. 2014, 1410.3706.

[164] S. Chitsazzadeh, J. Di Francesco, S. Schnee, R. K. Friesen, Y. Shimajiri, et al. Physical and Chemical Characteristics of L1689-SMM16, an Oscillating Prestellar Core in Ophiuchus. *ApJ*, 790(2):129, Aug. 2014.

[165] P. André, J. Di Francesco, D. Ward-Thompson, S. I. Inutsuka, R. E. Pudritz, and **Jaime E. Pineda**. From Filamentary Networks to Dense Cores in Molecular Clouds: Toward a New Paradigm for Star Formation. In Henrik Beuther, Ralf S. Klessen, Cornelis P. Dullemond, and Thomas Henning, editors, *Protostars and Planets VI*, page 27, Jan. 2014, 1312.6232.

[166] **Jaime E. Pineda** and P. S. Teixeira. Spokes cluster: The search for the quiescent gas. *A&A*, 555:A106, July 2013, 1305.3329.

[167] N. Peretto, G. A. Fuller, A. Duarte-Cabral, A. Avison, P. Hennebelle, et al. Global collapse of molecular clouds as a formation mechanism for the most massive stars. *A&A*, 555:A112, July 2013, 1307.2590.

[168] L. Guzman-Ramirez, **Jaime E. Pineda**, A. A. Zijlstra, R. Stancliffe, and A. Karakas. ^{3}He: Does the problem persist? *MNRAS*, 432(1):793–798, June 2013, 1303.5607.

[169] R. Galván-Madrid, H. B. Liu, Z. Y. Zhang, **Jaime E. Pineda**, T. C. Peng, et al. MUSCLE W49: A Multi-Scale Continuum and Line Exploration of the Most Luminous Star Formation Region in the Milky Way. I. Data and the Mass Structure of the Giant Molecular Cloud. *ApJ*, 779(2):121, Dec. 2013, 1309.4129.

[170] Jonathan B. Foster, Kaisey S. Mandel, **Jaime E. Pineda**, Kevin R. Covey, Héctor G. Arce, and Alyssa A. Goodman. Evidence for grain growth in molecular clouds: A Bayesian examination of the extinction law in Perseus. *MNRAS*, 428(2):1606–1622, Jan. 2013, 1210.2391.

[171] Xuepeng Chen, Héctor G. Arce, Qizhou Zhang, Tyler L. Bourke, Ralf Launhardt, et al. SMA Observations of Class 0 Protostars: A High Angular Resolution Survey of Protostellar Binary Systems. *ApJ*, 768(2):110, May 2013, 1304.0436.

[172] **Jaime E. Pineda**, A. J. Maury, G. A. Fuller, L. Testi, D. García-Appadoo, et al. The first ALMA view of IRAS 16293-2422. Direct detection of infall onto source B and high-resolution kinematics of source A. *A&A*, 544:L7, Aug. 2012, 1206.5215.

[173] Erik Rosolowsky, **Jaime E. Pineda**, and Yu Gao. Minimal HCN emission from molecular clouds in M33. *MNRAS*, 415(2):1977–1984, Aug. 2011, 1104.3935.

[174] **Jaime E. Pineda**, Alyssa A. Goodman, Héctor G. Arce, Paola Caselli, Steven Longmore, and Stuartt Corder. Expanded Very Large Array Observations of the Barnard 5 Star-forming Core: Embedded Filaments Revealed. *ApJL*, 739(1):L2, Sept. 2011, 1106.5474.

[175] **Jaime E. Pineda**, Héctor G. Arce, Scott Schnee, Alyssa A. Goodman, Tyler Bourke, et al. The Enigmatic Core L1451-mm: A First Hydrostatic Core? Or a Hidden VeLLO? *ApJ*, 743(2):201, Dec. 2011, 1109.1207.

[176] Héctor G. Arce, Michelle A. Borkin, Alyssa A. Goodman, **Jaime E. Pineda**, and Christopher N. Beaumont. A Bubbling Nearby Molecular Cloud: COMPLETE Shells in Perseus. *ApJ*, 742(2):105, Dec. 2011, 1109.3368.

[177] Markus Schmalzl, Jouni Kainulainen, Sascha P. Quanz, João Alves, Alyssa A. Goodman, et al. Star Formation in the Taurus Filament L 1495: From Dense Cores to Stars. *ApJ*, 725(1):1327–1336, Dec. 2010, 1010.2755.

[178] **Jaime E. Pineda**, Alyssa A. Goodman, Héctor G. Arce, Paola Caselli, Jonathan B. Foster, Philip C. Myers, and Erik W. Rosolowsky. Direct Observation of a Sharp Transition to Coherence in Dense Cores. *ApJL*, 712(1):L116–L121, Mar. 2010, 1002.2946.

[179] Helen Kirk, **Jaime E. Pineda**, Doug Johnstone, and Alyssa Goodman. The Dynamics of Dense Cores in the Perseus Molecular Cloud. II. The Relationship Between Dense Cores and the Cloud. *ApJ*, 723(1):457–475, Nov. 2010, 1008.4527.

[180] Roberto Galván-Madrid, Qizhou Zhang, Eric Keto, Paul T. P. Ho, Luis A. Zapata, et al. From the Convergence of Filaments to Disk-outflow Accretion: Massive Star Formation in W33A. *ApJ*, 725(1):17–28, Dec. 2010, 1004.2466.

[181] Sami Dib, Patrick Hennebelle, **Jaime E. Pineda**, Timea Csengeri, Sylvain Bontemps, Edouard Audit, and Alyssa A. Goodman. The Angular Momentum of Magnetized Molecular Cloud Cores: A Two-dimensional-Three-dimensional Comparison. *ApJ*, 723(1):425–439, Nov. 2010, 1003.5118.

[182] Héctor G. Arce, Michelle A. Borkin, Alyssa A. Goodman, **Jaime E. Pineda**, and Michael W. Halle. The COMPLETE Survey of Outflows in Perseus. *ApJ*, 715(2):1170–1190, June 2010, 1005.1714.

[183] **Jaime E. Pineda**, Erik W. Rosolowsky, and Alyssa A. Goodman. The Perils of Clumpfind: The Mass Spectrum of Substructures in Molecular Clouds. *ApJL*, 699(2):L134–L138, July 2009, 0906.0331.

[184] Esteban F. E. Morales, Diego Mardones, Guido Garay, Kate J. Brooks, and **Jaime E. Pineda**. A Multiwavelength Study of Young Massive Star-Forming Regions. III. Mid-Infrared Emission. *ApJ*, 698(1):488–501, June 2009, 0902.4625.

[185] Alyssa A. Goodman, Erik W. Rosolowsky, Michelle A. Borkin, Jonathan B. Foster, Michael Halle, Jens Kauffmann, and **Jaime E. Pineda**. A role for self-gravity at multiple length scales in the process of star formation. *Nature*, 457(7225):63–66, Jan. 2009.

[186] Alyssa A. Goodman, **Jaime E. Pineda**, and Scott L. Schnee. The "True" Column Density Distribution in Star-Forming Molecular Clouds. *ApJ*, 692(1):91–103, Feb. 2009, 0806.3441.

[187] Jonathan B. Foster, Erik W. Rosolowsky, Jens Kauffmann, **Jaime E. Pineda**, Michelle A. Borkin, et al. Dense Cores in Perseus: The Influence of Stellar Content and Cluster Environment. *ApJ*, 696(1):298–319, May 2009, 0902.0536.

[188] E. W. Rosolowsky, **Jaime E. Pineda**, J. Kauffmann, and A. A. Goodman. Structural Analysis of Molecular Clouds: Dendrograms. *ApJ*, 679(2):1338–1351, June 2008, 0802.2944.

[189] E. W. Rosolowsky, **Jaime E. Pineda**, J. B. Foster, M. A. Borkin, J. Kauffmann, et al. An Ammonia Spectral Atlas of Dense Cores in Perseus. *ApJS*, 175(2):509–521, Apr. 2008, 0711.0231.

[190] **Jaime E. Pineda**, Paola Caselli, and Alyssa A. Goodman. CO Isotopologues in the Perseus Molecular Cloud Complex: the X-factor and Regional Variations. *ApJ*, 679(1):481–496, May 2008, 0802.0708.

[191] Naomi A. Ridge, James Di Francesco, Helen Kirk, Di Li, Alyssa A. Goodman, et al. The COMPLETE Survey of Star-Forming Regions: Phase I Data. *AJ*, 131(6):2921–2933, June 2006, astro-ph/0602542.

Articles in Collaborations

[1] D. Navarro-Almaida, R. Le Gal, A. Fuente, P. Rivière-Marichalar, V. Wakelam, et al. Gas phase Elemental abundances in Molecular cloudS (GEMS). II. On the quest for the sulphur reservoir in molecular clouds: the H_2S case. *A&A*, 637:A39, May 2020, 2004.03475.

[2] C. Favre, C. Vastel, I. Jimenez-Serra, D. Quénard, P. Caselli, et al. Seeds of Life in Space (SOLIS). VII. Discovery of a cold dense methanol blob toward the L1521F VeLLO system. *A&A*, 635:A189, Mar. 2020, 2002.07004.

[3] Marta De Simone, Cecilia Ceccarelli, Claudio Codella, Brian E. Svoboda, Claire Chandler, et al. Hot Corinos Chemical Diversity: Myth or Reality? *ApJL*, 896(1):L3, June 2020, 2006.04484.

[4] E. Bianchi, C. J. Chandler, C. Ceccarelli, C. Codella, N. Sakai, et al. FAUST I. The hot corino at the heart of the prototypical Class I protostar L1551 IRS5. *MNRAS*, July 2020, 2007.10275.

[5] Sümeyye Suri, Álvaro Sánchez-Monge, Peter Schilke, Seamus D. Clarke, Rowan J. Smith, et al. The CARMA-NRO Orion Survey. Filamentary structure as seen in $C^{18}O$ emission. *A&A*, 623:A142, Mar. 2019, 1901.00176.

[6] Shuo Kong, Héctor G. Arce, Anneila I. Sargent, Steve Mairs, Ralf S. Klessen, et al. The CARMA-NRO Orion Survey: Core Emergence and Kinematics in the Orion A Cloud. *ApJ*, 882(1):45, Sept. 2019, 1908.04488.

[7] GRAVITY Collaboration, K. Perraut, L. Labadie, B. Lazareff, L. Klarmann, et al. The GRAVITY Young Stellar Object survey. I. Probing the disks of Herbig Ae/Be stars in terrestrial orbits. *A&A*, 632:A53, Dec. 2019, 1911.00611.

[8] A. Fuente, D. G. Navarro, P. Caselli, M. Gerin, C. Kramer, et al. Gas phase Elemental abundances in Molecular cloudS (GEMS). I. The prototypical dark cloud TMC 1. *A&A*, 624:A105, Apr. 2019, 1809.04978.

[9] C. Favre, C. Ceccarelli, A. López-Sepulcre, F. Fontani, R. Neri, et al. SOLIS IV. Hydrocarbons in the OMC-2 FIR4 Region, a Probe of Energetic Particle Irradiation of the Region. *ApJ*, 859(2):136, June 2018, 1804.07825.

[10] H. Broekhoven-Fiene, B. C. Matthews, P. Harvey, H. Kirk, M. Chen, et al. The JCMT Gould Belt Survey: A First Look at the Auriga-California Molecular Cloud with SCUBA-2. *ApJ*, 852(2):73, Jan. 2018, 1801.08139.

[11] K. Pattle, D. Ward-Thompson, J. M. Kirk, J. Di Francesco, H. Kirk, et al. The JCMT Gould Belt Survey: first results from SCUBA-2 observations of the Cepheus Flare region. *MNRAS*, 464(4):4255–4281, Feb. 2017, 1610.03671.

[12] D. Johnstone, S. Ciccone, H. Kirk, S. Mairs, J. Buckle, et al. The JCMT Gould Belt Survey: A First Look at IC 5146. *ApJ*, 836(1):132, Feb. 2017, 1701.04898.

[13] D. Ward-Thompson, K. Pattle, J. M. Kirk, K. Marsh, J. Buckle, et al. The JCMT and Herschel Gould Belt Surveys: a comparison of SCUBA-2 and Herschel data of dense cores in the Taurus dark cloud L1495. *MNRAS*, 463(1):1008–1025, Nov. 2016, 1608.04353.

[14] D. Rumble, J. Hatchell, K. Pattle, H. Kirk, T. Wilson, et al. The JCMT Gould Belt Survey: evidence for radiative heating and contamination in the W40 complex. *MNRAS*, 460(4):4150–4175, Aug. 2016, 1605.04842.

[15] H. Kirk, J. Di Francesco, D. Johnstone, A. Duarte-Cabral, S. Sadavoy, et al. The JCMT Gould Belt Survey: A First Look at Dense Cores in Orion B. *ApJ*, 817(2):167, Feb. 2016, 1512.00893.

[16] T. J. T. Moore, R. Plume, M. A. Thompson, H. Parsons, J. S. Urquhart, et al. The JCMT Plane Survey: early results from the $\ell = 30°$ field. *MNRAS*, 453(4):4264–4277, Nov. 2015, 1509.00318.

[17] ALMA Partnership, E. B. Fomalont, C. Vlahakis, S. Corder, A. Remijan, et al. The 2014 ALMA Long Baseline Campaign: An Overview. *ApJL*, 808(1):L1, July 2015, 1504.04877.