Dominique M. Segura-Cox

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EDUCATION

Ph.D. in Astronomy – University of Illinois, Champaign-Urbana, Illinois 2011 – 2017
Illinois Distinguished Fellow
Thesis: "Observations of Disks around the Youngest Protostars: Characterizing Frequency, Dust Properties, and Magnetic Fields at the Earliest Times"
Advisor: Prof. Leslie Looney

B.S. in Astrophysics and Astronomy – University of Michigan, Ann Arbor, Michigan 2007 – 2011
Michigan Tradition Award
Graduated with High Honors
Advisor: Prof. Sally Oey

PROFESSIONAL APPOINTMENTS

National Science Foundation Astronomy & Astrophysics Postdoctoral Fellow 2021 – Present
The University of Texas at Austin
Mentor: Assoc. Prof. Stella Offner

Visiting Scientist 2021 – Present
Max Planck Institute for Extraterrestrial Physics, Center for Astrochemical Studies

Postdoctoral Researcher 2017 – 2021
Max Planck Institute for Extraterrestrial Physics, Center for Astrochemical Studies
Mentor: Prof. Dir. Paola Caselli

Graduate Research Assistant 2011 – 2017
University of Illinois Astronomy Department
Advisor: Prof. Leslie Looney, Mentor: Prof. You-Hua Chu

ACTIVE RESEARCH AREAS

- Observing properties of young protostellar disks still embedded in their larger-scale natal envelopes
- Investigating the influence of accretion from envelopes on disk structure/evolution and multiplicity
- Examining substructures in embedded disks to search for the earliest footholds of planet formation

FUNDING

$624,473 total — $355,000 as Principal Investigator

National Science Foundation Astronomy & Astrophysics Postdoctoral Fellowship 2021 - 2024
National Science Foundation Fellowship, $300,000, AST–2102405, *Principal Investigator*

Conference: 21st Annual Symposium of the NSF AAPF Fellows 2022
National Science Foundation Grant, $44,473, AST–2236620, *Lead Author*

SOFIA Cycle 4 General Observing Grant 2015
SOFIA Science Mission Operations, $55,000 for Project #04_0170, *Science Principal Investigator*

ALMA NRAO Student Observing Support Fellowship 2015
National Radio Astronomical Observatory, $35,000 for one year of graduate stipend

VLA NRAO Student Observing Support Fellowship 2013
National Radio Astronomical Observatory, $35,000 for one year of graduate stipend

Illinois Distinguished Fellowship 2011
University of Illinois, $155,000 for three years of graduate stipend & tuition

AWARDS

Best Poster Award 2023
Protostars and Planets VII Conference, elected by popular vote

Mr. and Mrs. Hsiang-Pai and Wen-Hua Chu Department of Astronomy Excellence in Research Graduate Student Award 2017
University of Illinois Astronomy Department

Excellence Award in Recognition of Academic Excellence & Good Citizenship 2016 & 2017
University of Illinois

Astronomy Undergraduate Research Award and Service Award 2011
University of Michigan Department of Astronomy

EXTERNAL RESEARCH TALKS

30 external talks — 15 invited talks, including 3 reviews and 3 colloquia

(**30**) Protostars and Planets VII Conference: Best Poster Award Prize Talk, **invited** Apr 2023

(**29**) University of Michigan Department of Astronomy, **colloquium** Feb 2023

(**28**) 241st Meeting of the American Astronomical Society Jan 2023

(**27**) 241st Meeting of the American Astronomical Society, **invited** Jan 2023
NRAO/ngVLA Special Session: *Chemical Probes of Astrophysical Systems*

(**26**) From Clouds to Planets II: The Astrochemical Link, **review** Oct 2022

(**25**) University of Michigan Star and Planet Formation Journal Club, **invited** Mar 2022

(**24**) Jodrell Bank Centre for Astrophysics, **colloquium** Mar 2022

(**23**) NSF Astronomy & Astrophysics Postdoctoral Fellows Symposium Jan 2022

(**22**) Gaps, Rings, Spirals, and Vortices: Structure Formation in Planet-Forming Disks, **review** Oct 2021

(**21**) Puzzles of Star Formation, **invited** Jul 2021

(**20**) European Astronomical Society Annual Meeting 2021, **review** Jun 2021
Special Session: *Streamers: Thinking Outside the Planet-Forming Disk*

(**19**) From Core to Disk 2 May 2021

(**18**) University of Illinois Astronomy Department, **colloquium** Mar 2021

(**17**) Five Years after HL Tau: a New Era in Planet Formation Dec 2020

(**16**) MPIA Disk Group Seminar, **invited** Nov 2020

(**15**) Harvard-Smithsonian Center for Astrophysics SMA Seminar, **invited** Sep 2020

⟨**14**⟩ Europlanet Science Congress 2020 Sep 2020
⟨**13**⟩ European Astronomical Society Annual Meeting 2020 Jun 2020
⟨**12**⟩ Building Blocks of Planets 2020 Workshop, **invited** Apr 2020
⟨**11**⟩ ALMA2019: Science Results and Cross-Facility Synergies Oct 2019
⟨**10**⟩ European Week of Astronomy and Space Science (EWASS), **invited** Jun 2019
Special Session: *The Physics and Chemistry of Class I Protostars in the ALMA Era*
⟨**9**⟩ National Radio Astronomical Observatory Lunch Seminar Jan 2019
⟨**8**⟩ Embedded Disk and Planet Formation Workshop: Leiden, **invited** Jul 2017
⟨**7**⟩ 229th Meeting of the American Astronomical Society Jan 2017
⟨**6**⟩ Harvard-Smithsonian Center for Astrophysics, **invited** Dec 2016
⟨**5**⟩ Half a Decade of ALMA: Cosmic Dawns Transformed Meeting Sep 2016
⟨**4**⟩ National Radio Astronomical Observatory Lunch Seminar Feb 2016
⟨**3**⟩ Midwest Magnetic Fields Workshop May 2015
⟨**2**⟩ AAS Workshop on Dense Cores: Origin, Evolution, and Collapse Jul 2014
⟨**1**⟩ 69th International Symposium on Molecular Spectroscopy Jun 2014

RESEARCH POSTERS

⟨**9**⟩ Protostars and Planets VII Conference Apr 2023
⟨**8**⟩ Multi-Line Diagnostics of the Interstellar Medium Conference Apr 2022
⟨**7**⟩ Circumplanetary Disks and Satellite Formation II Conference Mar 2021
⟨**6**⟩ The Wonders of Star Formation Conference Sep 2018
⟨**5**⟩ 227th Meeting of the American Astronomical Society Jan 2016
⟨**4**⟩ Circumstellar Disks & Planet Formation Conference Oct 2014
⟨**3**⟩ 223rd Meeting of the American Astronomical Society Jan 2014
⟨**2**⟩ CARMA Science Symposium Jul 2013
⟨**1**⟩ 217th Meeting of the American Astronomical Society Jan 2011

CAREER OR INCLUSIVITY TALKS AND PANELS

⟨**5**⟩ Co-presenter of *Writing a Successful Observing Proposal* Mar 2023
Coached graduate students in the University of Texas at Austin Department of Astronomy
⟨**4**⟩ *Perspectives from a First-Generation Wolverine*, **invited** Feb 2023
Discussed challenges first-generation students can face at the University of Michigan Department of Astronomy's Diversity, Equity & Inclusion Seminar Series
⟨**3**⟩ *How the Student Astronomical Society Changed My Life* Feb 2023
Presented to University of Michigan undergraduates about hidden advantages of peer groups
⟨**2**⟩ Panelist of *The Magic Leap & UT Austin Women in Natural Science Career Panel* Nov 2021
Spoke with University of Texas at Austin undergraduates about career path and advancement strategies

⟪**1**⟫ Co-presenter of *Career Webinar for Ph.D. Students: How to Apply for Your First Postdoc* Sep 2020
Presented to graduate students at the Max Planck Institute for Extraterrestrial Physics, the Max Planck Institute for Astrophysics, and the European Southern Observatory

APPROVED OBSERVING PROPOSALS AS PRINCIPAL INVESTIGATOR

18 approved proposals — 7 facilities — 196.8 hours total

⟪**18**⟫ *Are streamers common? An unbiased survey of protostellar envelopes in a star-forming region* 2022
ALMA, 2022.1.01259.S

⟪**16** & **17**⟫ *Are envelope-to-disk accretion streamers associated with magnetic fields in a young Class 0 protostar?* 2021 & 2022
ALMA, Project 2021.1.01707.S & 2022.1.00197.S

⟪**15**⟫ *Does a planet-forming Class I disk accrete from core scales?* 2021
APEX, Project M9524C_107

⟪**14**⟫ *Does an Accretion Streamer of a Planet-Forming Class I Disk Reach Core Scales?* 2020
IRAM 30-meter, Project 112-20

⟪**13**⟫ *Chemically and Kinematically Probing into the Disks of Two Class 0 Protostars* 2020
NOEMA, Project W19AK

⟪**11** & **12**⟫ *Envelope to Disk: The Composition of Accretion* 2019 & 2020
NOEMA, Projects W19AG & W20AG

⟪**10**⟫ *The Origins of Complex Organic Molecule Emission in Protostars* 2018
NOEMA, Project W18AS

⟪**9**⟫ *Linking the Stages of Star Formation: Kinematics and Chemistry of Class I Protostar TMC1A* 2018
NOEMA, Project W18AN

⟪**8**⟫ *Chemistry Associated with the Protostellar Disk with the Youngest-Known Dust Rings* 2018
ALMA, Project 2018.1.01634.S

⟪**7**⟫ *Doubling the Number of Class 0/I Disks Through Line Observations of Perseus Candidates* 2017
ALMA, Project 2018.1.01348.S

⟪**6**⟫ *First Detection of Disks around Class 0/I Protostars in Cepheus* 2017
SMA, Project 2017A-S044

⟪**5**⟫ *Has Planet Formation Already Begun in the Class I Protostellar Phase?* 2015
ALMA, Project 2015.1.01512.S

⟪**4**⟫ *Confirming the First Class 0 Circumbinary Disk* 2015
ALMA, Project 2015.1.01053.S

⟪**3**⟫ *FIR Polarization of Large-Scale Emission around Young Protostars: The TADPOL+E Survey* 2015
SOFIA, Project #04_0170

⟪**2**⟫ *Probing Magnetic Braking with the Disk of Class 0 Source L1527* 2013
CARMA, Project c1188

⟪**1**⟫ *The Inner Envelope Kinematics of the Class 0 Source L1527* 2013
CARMA, Project c1122

LARGE OBSERVING PROGRAMS WITH LEADERSHIP ROLES

PROtostars & DIsks: Global Evolution (PRODIGE)
NOEMA, MPG-IRAM Observing Program L19MB, 520 hours, observations ongoing 2019 – Present
Co-PIs: Paola Caselli & Thomas Henning

- Acting as a principal science investigator: developed calibration and imaging procedures
- Drafted the proposal, defined scientific rationale, set observing strategy, and selected targets
- Designed and coordinated Ph.D. and postdoc projects
- Authored a data reduction and imaging cookbook for the program, to be released for public use

Fifty AU STudy of the chemistry in the disk/envelope system of Solar-like protostars (FAUST)
ALMA, Large Program 2018.1.01205.L, 152 hours, observations complete 2018 – Present
Co-PIs: Satoshi Yamamoto, Cecilia Ceccarelli, Claire Chandler, Claudio Codella & Nami Sakai

- Leading the data reduction and science exploitation for 1 of 13 targets, managing team efforts

ON-SITE OBSERVING EXPERIENCE

CARMA Observing Shifts, 35 days 2013 – 2014

- Completed five week-long, 24 hours-a-day shifts which included controlling the telescope array, checking weather conditions, cooperatively taking data for other scientists, and assessing data quality

CARMA Summer School 2012

- Learned to operate the CARMA telescope array, designed and carried out first millimeter-wave observing project, received training in interferometric data reduction and analysis techniques

TECHNICAL SKILLS

Facilities: Extensive experience with ALMA, NOEMA, VLA, SMA, CARMA, IRAM-30m, APEX, SOFIA, *Spitzer*

Observational techniques: Skilled with advanced interferometric calibration and analysis including self-calibration of long-baseline data, reducing polarized observations, and studies in the *uv*-plane

Astronomical software: Proficient with CASA, GILDAS, MIRIAD, SAOImage DS9, IRAF, SMART

Programming languages: Familiar with Python, C, IDL, shell-scripting, R, HTML

TEACHING EXPERIENCE

Enrolled in TIDES Concentration in Teaching and Mentoring, The University of Texas at Austin

- Covers formal pedagogy, inclusive teaching styles, observations, and guest lecturing 2023 – Present

Guest Instructor, The University of Texas at Austin

- Undergraduate Course
  Introductory Astronomy (for science majors), instructed 2 lectures Fall 2022

Graduate Student Teaching Assistant, University of Illinois

- Graduate Course
  Theoretical Stellar Physics Spring 2015
- Upper-Division Undergraduate Courses
  Astronomical Techniques Spring 2012, Fall 2014
  Solar System & Interstellar Medium Spring 2013
  Stellar Astrophysics Fall 2011, Fall 2012

MENTORING EXPERIENCE

Postdoc Mentor to Undergraduate Summer Students, The University of Texas at Austin

- Primary Supervisor, REU program
  - **Andrew Milne** – *Topic: modeling kinematic signatures of infall and rotation* 2023 – Present
    - Currently B.S. student at University of Iowa
- Primary Supervisor, TAURUS program
  - **Cayden Kirkpatrick** – *Topic: measuring protostar masses via Keplerian rotation* 2022 – Present
    - Currently B.S. student at University of Wisconsin-Madison

Postdoc Mentor to Graduate Students, Max Planck Institute for Extraterrestrial Physics

- Research Mentor, with direct supervision role
  - **Maria Teresa Valdivia-Mena** – *Topic: observing envelope to disk infall* 2020 – Present
    - Currently Ph.D. student at Max Planck Institute for Extraterrestrial Physics
  - **Carolina Agurto Gangas** – *Topic: modeling dust in envelopes and disks* 2018 – 2020
    - Earned Ph.D. in 2020 from Ludwig-Maximilians-Universität München
    - Currently FONDECYT Postdoctoral Fellow at Universidad de Chile
- Research Mentor
  - **Joaquin Zamponi** – *Topic: producing simulated observations of disks* 2019 – Present
    - Currently Ph.D. student at Max Planck Institute for Extraterrestrial Physics

Graduate Mentor to Undergraduate Students, University of Illinois

- Research Mentor
  - **John DeVries** – *Topic: calibrating and imaging VLA continuum data* 2017
    - Earned M.S. in 2019 from California State University, Los Angeles
    - Currently Electrical Engineer at Ecliptic Enterprises Corp.
  - **Jiayin Dong** – *Topic: imaging Class II dust disks with ALMA data* 2015 – 2016
    - Earned Ph.D. in 2022 from Pennsylvania State University
    - Currently Simons Foundation Flatiron Research Fellow at the Flatiron Institute
  - **Andrew Nadolski** – *Topic: probing outflow kinematics with CARMA data* 2014
    - Earned Ph.D. in 2020 from University of Illinois
    - Currently Process Engineer at Intel Corp.
  - **Zhuchang Zhan** – *Topic: identifying outflows with CARMA data* 2013
    - Earned Ph.D. in 2021 from Massachusetts Institute of Technology
    - Currently Data Scientist at Apple
- Women in Astronomy Mentor
  - **Sushma Adari** 2014 – 2017
    - Earned B.S. in 2018 from University of Illinois
    - Currently Data Scientist at SpiderRock Advisors

PROFESSIONAL SERVICE

Scientific Organizing Committee Member 2023 – Present

- Multiplicity in Young Stars Conference, Niels Bohr Institute

Member of Dissertation Advisory Committees

- Maria Teresa Valdivia-Mena, Max Planck Institute for Extraterrestrial Physics 2020 – Present
- Joaquin Zamponi, Max Planck Institute for Extraterrestrial Physics 2019 – Present

Lead Conference Organizer: 21st Annual Symposium of the NSF AAPF Fellows 2022 – 2023

- Splinter Session at the 241st Meeting of the American Astronomical Society

Chambliss Award Poster Judge, 241st Meeting of the American Astronomical Society 2023

Grant Panel Reviewer
- NSF Astronomy and Astrophysics Grant Program 2022
- NASA Research Opportunities in Space and Earth Sciences 2022

Co-organizer of the Star and Planet Formation Seminar Series 2018 – 2021
- Joint seminar series coordinated between the Max Planck Institute for Extraterrestrial Physics, the Ludwig-Maximilians-Universität München, and the European Southern Observatory

Journal Reviewer: Nature, The Astrophysical Journal, The Astrophysical Journal Letters 2016 – Present

Graduate Student Representative to the Faculty 2016 – 2017
- University of Illinois Astronomy Department, elected by peers

Treasurer of Women in Astronomy, University of Illinois Astronomy Department 2014 – 2017

University of Illinois Fellowship Board Executive Committee 2014
- Served as a student panelist to select campus-wide graduate fellowship recipients

Vice President of the Student Astronomical Society, University of Michigan 2010 – 2011

PRESS COVERAGE

Stars and Planets Grow Up as Siblings, Max Planck Society press release 2020
- Picked up by news sites worldwide and covered in 15+ languages
- Highlighted in a 20-minute interview on the *John Bachelor Show*, aired on syndicated AM radio

A Growing Stellar System Directly Fed by the Mother Cloud, Max Planck Society press release 2020

VLA Reveals Dramatic New Evidence about Star and Planet Formation, NRAO press release 2016

SELECT OUTREACH ACTIVITIES

Astronomy Modules for High School Classrooms, The University of Texas at Austin 2021 – Present
- Developing modules of worksheets, lesson plans, activities, and teachers' notes aimed at bringing astronomy into rural classrooms; modules will be published online for broad use by any teacher
- Astronomy themes are used to convey core math and science concepts required by Texas state education standards for graduation; a summer workshop for rural teachers will be implemented to generate awareness of the program, coordinated with the McDonald Observatory

Guest Speaker, Oklahoma City Astronomy Club, hosted at Science Museum Oklahoma 2023
- Presented *A Journey through the Many Size Scales of Star and Planet Formation*

YouTube Video Discussion: Science in *Stowaway*, Max Planck Society, 2-part video interview 2021
- Commented on the scientific accuracy of concepts portrayed in *Stowaway*, a feature-length film
- Recorded on-set at the Bavaria Filmstadt studio, collaboration between YouTuber Doktor Whatson and the Max Planck Society, German dubbing

Astronomy on Tap Speaker, Max Planck Institute for Extraterrestrial Physics 2020
- Presented *Baby Photos: Star Formation Caught in the Act*, aimed at an audience of the general public

Public Total Eclipse Viewing, University of Illinois 2017
- Aided with advanced planning logistics for off-campus event, lead hands-on demonstrations

Correctional Facility Eclipse Outreach, Harrisburg Juvenile and Vienna Correctional Facilities 2017
- Engaged with incarcerated juvenile and adult individuals in the path of totality of the upcoming eclipse

Girls Explore Astronomy Summer Camp, University of Illinois 2016
- Assisted with organization and presented portions of a week-long astronomy summer science camp for 10-12-year-old girls, coordinated with the Champaign Park District

Role Model Video Series, NRAO, video interview 2016
- Discussed career path and past challenges faced, for NRAO website aimed at the public

The American Astronomical Society Astronomy Ambassadors Program Workshop 2016
- Participated in formal outreach training aimed at early career astronomers

I-RISE Summer Teacher Workshops, University of Illinois 2012 & 2013
- Led, organized, and lectured at two-day workshops aimed at middle and high school math and science teachers to incorporate astronomy throughout their curricula

PUBLICATIONS

also available on ADS

h-index = 27 — 56 total papers — 2178+ citations — average 38+ citations/paper

FIRST AUTHOR PAPERS — 251+ citations — average 62+ citations/paper

⟪**4**⟫ *Four annular structures in a protostellar disk with an age <500,000 years*
D. M. Segura-Cox, A. Schmiedeke, J. E. Pineda, I. W. Stephens, M. Fernández-López, L. W. Looney, P. Caselli, Z.-Y. Li, L. G. Mundy, W. Kwon, & R. J. Harris
Nature, 586, 228 (2020) | **78+ citations**

⟪**3**⟫ *The VLA Nascent Disk and Multiplicity Survey of Perseus Protostars (VANDAM). V. 18 Candidate Disks around Class 0 and I Protostars in the Perseus Molecular Cloud*
D. M. Segura-Cox, L. W. Looney, J. J. Tobin, Z.-Y. Li, R. J. Harris, S. Sadavoy, M. M. Dunham, C. Chandler, K. Kratter, L. Perez, & C. Melis
ApJ, 866, 161 (2018) | **60+ citations**

⟪**2**⟫ *The VLA Nascent Disk and Multiplicity Survey: First Look at Resolved Candidate Disks around Class 0 and I Protostars in the Perseus Molecular Cloud*
D. M. Segura-Cox, R. J. Harris, J. J. Tobin, L. W. Looney, Z.-Y. Li, C. Chandler, K. Kratter, M. M. Dunham, S. Sadavoy, L. Perez, & C. Melis
ApJ, 817, 14 (2016) | **53+ citations**

⟪**1**⟫ *The Magnetic Field in the Class 0 Protostellar Disk of L1527*
D. M. Segura-Cox, L. W. Looney, I. W. Stephens, M. Fernández-López, W. Kwon, J. J. Tobin, Z.-Y. Li, & R. Crutcher
ApJL, 798, 2 (2015) | **60+ citations**

CO-AUTHOR PAPERS WITH SIGNIFICANT CONTRIBUTION (★ indicates student paper)

⟪**19**⟫ *PRODIGE - Envelope to Disk with NOEMA II. Small-scale temperature structure and a streamer feeding the SVS13A protobinary using CH3CN and DCN*
T.-H. Hsieh, **D. M. Segura-Cox**, J. E. Pineda, P. Caselli, L. Bouscasse, R. Neri, A. López-Sepulcre, M. T. Valdivia-Mena, M. J. Maureira, T. Henning (+11 co-authors)
arXiv:2211.05022 (2022)

⟪**18**⟫ *Dust Hot Spots at 10 au Scales around the Class 0 Binary IRAS 16293-2422 A: A Departure from the Passive Irradiation Model*
M. J. Maureira, M. Gong, J. E. Pineda, H. B. Liu, K. Silsbee, P. Caselli, J. Zamponi, **D. M. Segura-Cox**, & A. Schmiedeke
ApJL, 941, 2 (2022)

⟪**17★**⟫ *PRODIGE - envelope to disk with NOEMA. I. A 3000 au streamer feeding a Class I protostar*
M. T. Valdivia-Mena, J. E. Pineda, **D. M. Segura-Cox**, P. Caselli, R. Neri, A. López-Sepulcre, N. Cunningham, L. Bouscasse, D. Semenov, T. Henning (+12 co-authors)
A&A, 667, 12 (2022)

⟪**16**⟫ *ALMA-DOT VI: Accretion shocks in the disk of DG Tau and HL Tau*
A. Garufi, L. Podio, C. Codella, **D. M. Segura-Cox**, M. Vander Donckt, S. Mercimek, F. Bacciotti, D. Fedele, M. Kasper, J. E. Pineda (+2 co-authors)
A&A, 658, 104 (2022)

⟪**15**⟫ *A protostellar system fed by a streamer of 10,500 au length*
J. E. Pineda, **D. M. Segura-Cox**, P. Caselli, N. Cunningham, B. Zhao, A. Schmiedeke, M. J. Maureira, & R. Neri
Nature Astronomy, 4, 1158 (2020)

⟪**14**⟫ *Dust masses of young disks: constraining the initial solid reservoir for planet formation*
L. Tychoniec, C. F. Manara, G. P. Rosotti, E. F. van Dishoeck, A. J. Cridland, T.-H. Hsieh, N. M. Murillo, **D. M. Segura-Cox**, S. E. van Terwisga, & J. J. Tobin
A&A, 640, 19 (2020)

⟪**13**⟫ *Orbital and mass constraints of the young binary system IRAS 16293-2422 A*
M. J. Maureira, J. E. Pineda, **D. M. Segura-Cox**, P. Caselli, L. Testi, G. Lodato, L. Loinard, & A. Hernandez-Gomez
ApJ, 897, 59 (2020)

⟪**12**⟫ *The GRAVITY Young Stellar Object survey I. Probing the disks of Herbig Ae/Be stars at terrestrial orbits*
K. Perraut, L. Labadie, B. Lazareff, L. Klarmann, **D. M. Segura-Cox**, M. Benisty, J. Bouvier, W. Brandner, A. Caratti o Garatti, P. Caselli (+70 co-authors)
A&A, 632, 53 (2019)

⟪**11**⟫ *Gas flow and accretion via spiral streamers and circumstellar disks in a young binary protostar*
F. O. Alves, P. Caselli, J. M. Girart, **D. M. Segura-Cox**, G. A. P. Franco, A. Schmiedeke, & B. Zhao
Science, 366, 6461 (2019)

⟪**10**⟫ *The specific angular momentum radial profile in dense cores: improved initial conditions for disk formation*
J. E. Pineda, B. Zhao, A. Schmiedeke, **D. M. Segura-Cox**, P. Caselli, P. C. Myers, J. Tobin, & M. Dunham
ApJ, 822, 103 (2019)

⟪**9**⟫ *The Mass Evolution of Protostellar Disks and Envelopes in the Perseus Molecular Cloud*
B. C. Andersen, I. W. Stephens, M. M. Dunham, R. Pokhrel, J. K. Jorgensen, S. Frimann, **D. M. Segura-Cox**, P. C. Myers, T. L. Bourke, J. J. Tobin, & L. Tychoniec
ApJ, 873, 54 (2019)

⟪**8**⟫ *The VLA Nascent Disk and Multiplicity Survey of Perseus Protostars (VANDAM). IV. Free-Free Emission from Protostars: Links to Infrared Properties, Outflow Tracers, and Protostellar Disk Masses*
L. Tychoniec, J. J. Tobin, A. Karska, C. Chandler, M. M. Dunham, R. J. Harris, K. M. Kratter, Z.-Y. Li, L. W. Looney, C. Melis (+4 co-authors including **D. M. Segura-Cox**)
ApJS, 238, 19 (2018)

⟪**7**⟫ *The VLA Nascent Disk And Multiplicity Survey of Perseus Protostars (VANDAM). III. Extended Radio Emission from Protostars in Perseus*
L. Tychoniec, J. J. Tobin, A. Karska, C. Chandler, M. M. Dunham, Z.-Y. Li, L. W. Looney, **D. M. Segura-Cox**, R. J. Harris, C. Melis, & S. I. Sadavoy
ApJ, 852, 18 (2018)

⟪**6**⟫ *The VLA Nascent Disk and Multiplicity Survey of Perseus Protostars (VANDAM). II. Multiplicity of Protostars in the Perseus Molecular Cloud*
J. J. Tobin, L. W. Looney, Z.-Y. Li, C. J. Chandler, M. M. Dunham, **D. M. Segura-Cox**, S. I. Sadavoy, C. Melis, R. J. Harris, K. Kratter, & L. Perez
ApJ, 818, 73 (2016)

⟪**5**⟫ *The Runaways and Isolated O-Type Star Spectroscopic Survey of the SMC (RIOTS4)*
J. B. Lamb, M. S. Oey, **D. M. Segura-Cox**, A. S. Graus, D. C. Kiminki, J. B. Golden-Marx, & J. Wm. Parker
ApJ, 817, 113 (2016)

⟪**4**⟫ *High-resolution 8 mm and 1 cm Polarization of IRAS 4A from the VLA Nascent Disk and Multiplicity (VANDAM) Survey*
E. G. Cox, R. J. Harris, L. W. Looney, **D. M. Segura-Cox**, J. J. Tobin, Z.-Y. Li, L. Tychoniec, C. J. Chandler, M. M. Dunham, K. Kratter (+3 co-authors)
ApJ, 814, 28 (2015)

⟪**3**⟫ *CARMA Large Area Star Formation Survey: Structure and Kinematics of Dense Gas in Serpens Main*
K. I. Lee, M. Fernández-López, S. Storm, L. W. Looney, L. G. Mundy, **D. M. Segura-Cox**, P. J. Teuben, E. Rosolowsky, H. G. Arce, E. C. Ostriker (+14 co-authors)
ApJ, 797, 76 (2014)

⟪**2**⟫ *Spitzer Observations of Dust Emission from H II Regions in the Large Magellanic Cloud*
I. W. Stephens, J. M. Evans, R. Xue, Y.-H. Chu, R. A. Gruendl, & **D. M. Segura-Cox**
ApJ, 784, 147 (2014)

⟪**1**⟫ *The Initial Mass Function of Field OB Stars in the Small Magellanic Cloud*
J. B. Lamb, M. S. Oey, A. A. Graus, F. C. Adams, & **D. M. Segura-Cox**
ApJ, 763, 101 (2013)

CO-AUTHOR PAPERS AS CONTRIBUTING AUTHOR

⟪**33**⟫ *FAUST. V. Hot methanol in the [BHB2007] 11 protobinary system; hot corino versus shock origin*
C. Vastel, F. Alves, C. Ceccarelli, M Bouvier, I. Jimenez-Serra, T. Sakai, P. Caselli, L. Evans, F. Fontani, R. Le Gal (+56 co-authors including **D. M. Segura-Cox**)
A&A, 664, 171 (2022)

⟪**32**⟫ *Chemical and Physical Characterization of the Isolated Protostellar Source CB68: FAUST IV*
M. Imai, Y. Oya, B. Svoboda, H. Liu, B. Lefloch, S. Viti, Y. Zhang, C. Ceccarelli, C. Codella, C. J. Chandler (+63 co-authors including **D. M. Segura-Cox**)
ApJ, 934, 70 (2022)

⟪**31**⟫ *An Interferometric View of H-MM1. I. Direct Observation of NH_3 Depletion*
J. E. Pineda, J. Harju, P. Caselli, O. Sipilä, M. Juvela, C. Vastel, E. Rosolowsky, A. Burkert, R. K. Friesen, Y. Shirley (+7 co-authors including **D. M. Segura-Cox**)
AJ, 163, 294 (2022)

⟪**30**⟫ *SOLIS. XVI. Mass ejection and time variability in protostellar outflows: Cep E*
A. de A. Schutzer, P. R. Rivera-Ortiz, B. Lefloch, A. Gusdorf, C. Favre, **D. M Segura-Cox**, A. López-Sepulcre, R. Neri, J. Ospina-Zamudio, M. De Simone (+30 co-authors)
A&A, 662, 104 (2022)

⟪**29**⟫ *SOLIS. XV. CH_3CN deuteration in the SVS13-A Class I hot corino*
E. Bianchi, C. Ceccarelli, C. Codella, A. López-Sepulcre, S. Yamamoto, N. Balucani, P. Caselli, L. Podio, R. Neri, R. Bachiller (+5 co-authors including **D. M. Segura-Cox**)
A&A, 662, 103 (2022)

⟪**28**⟫ *Misaligned Rotations of the Envelope, Outflow, and Disks in the Multiple Protostellar System of VLA 1623-2417: FAUST. III*
S. Ohashi, C. Codella, N. Sakai, C. J. Chandler, C. Ceccarelli, F. Alves, D. Fedele, T. Hanawa, A. Durán, C. Favre (+72 co-authors including **D. M. Segura-Cox**)
ApJ, 927, 54 (2022)

⟪**27**⟫ *The VLA/ALMA Nascent Disk and Multiplicity (VANDAM) Survey of Orion Protostars V. A Characterization of Protostellar Multiplicity*
J. J. Tobin, S. R. Offner, K. M. Kratter, S. T. Megeath, P. D. Sheehan, L. W. Looney, A. K. Diaz-Rodriguez, M. Osorio, G. Anglada, S. I. Sadavoy (+9 co-authors including **D. M. Segura-Cox**)
ApJ, 925, 39 (2022)

⟪**26**⟫ *VLA and NOEMA view of the Bok Globule CB 17: the starless nature of a proposed FHSC candidate*
S. Spear, M. J. Maureira, H. Arce, J. E. Pineda, M. Dunham, P. Caselli, & **D. M. Segura-Cox**
ApJ, 923, 231 (2021)

⟪**25**⟫ *The GRAVITY Young Stellar Object Survey. VI. Mapping the variable inner disk of HD 163296 at sub-au scales*
J. Sanchez-Bermudez, A. Caratti o Garatti, R. Garcia Lopez, K. Perraut, L. Labadie, M. Benisty, W. Brandner, C. Dougados, P. J. V. Garcia, T. Henning (+46 co-authors including **D. M. Segura-Cox**)
A&A, 654, 97 (2021)

⟪**24**⟫ *HAWC+/SOFIA Polarimetry in L1688: Relative Orientation of Magnetic Field and Elongated Cloud Structure*
D. Lee, M. Berthoud, C.-Y. Chen, E. G. Cox, J. A. Davidson, F. J. Encalada, L. M. Fissel, R. Harrison, W. Kwon, D. Li (+7 co-authors including **D. M. Segura-Cox**)
ApJ, 918, 39 (2021)

⟪**23**⟫ *870 μm Dust Continuum of the Youngest Protostars in Ophiuchus*
F. J. Encalada, L. W. Looney, J. J. Tobin, S. I. Sadavoy, **D. M. Segura-Cox**, E. Cox, Z.-Y. Li, & G. Novak
ApJ, 913, 149 (2021)

⟪**22**⟫ *FAUST. II. Discovery of a Secondary Outflow in IRAS 15398-3359: Variability in Outflow Direction during the Earliest Stage of Star Formation?*
Y. Okoda, Y. Oya, F. Logan, D. Johnstone, S. Inutsuka, C. Ceccarelli, C. Codella, C. Chandler, N. Sakai, Y. Aikawa (+59 co-authors including **D. M. Segura-Cox**)
ApJ, 910, 11 (2021)

⟪**21**⟫ *Dissecting the Supercritical Filaments Embedded in the 0.5 pc Subsonic Region of Barnard 5*
A. Schmiedeke, J. E. Pineda, P. Caselli, H. G. Arce, G. A. Fuller, A. A. Goodman, M. J. Maureira, S. S. R. Offner, **D. M. Segura-Cox**, & D. Seifried
ApJ, 909, 60 (2021)

⟪**20**⟫ *Kinematic Analysis of a Protostellar Multiple System: Measuring the Protostar Masses and Assessing Gravitational Instability in the Disks of L1448 IRS3B and L1448 IRS3A*
N. K. Reynolds, J. J. Tobin, P. D. Sheehan, S. I. Sadavoy, K. M. Kratter, Z.-Y. Li, C. J. Chandler, **D. M. Segura-Cox**, L. W. Looney, & M. M. Dunham
ApJL, 907, 10 (2020)

⟪**19**⟫ *FAUST I. The hot corino at the heart of the prototypical Class I protostar L1551 IRS5*
E. Bianchi, C. J. Chandler, C. Ceccarelli, C. Codella, N. Sakai, A. López-Sepulcre, L. T. Maud, G. Moellenbrock, B. Svoboda, Y. Watanabe (+56 co-authors including **D. M. Segura-Cox**)
MNRAS, 498, L87 (2020)

⟪**18**⟫ *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*
V. Taquet, C. Codella, M. De Simone, A. López-Sepulcre, J. E. Pineda, **D. M. Segura-Cox**, C. Ceccarelli, P. Caselli, A. Gusdorf, M. V. Persson (+36 co-authors)
A&A, 637, 63 (2020)

⟪**17**⟫ *Seeds of Life in Space (SOLIS). VII. Discovery of a cold dense methanol blob toward the L1521F VeLLO system*
C. Favre, C. Vastel, I. Jimenez-Serra, D. Quénard, P. Caselli, C. Ceccarelli, A. Chacón-Tanarro, F. Fontani, J. Holdship, Y. Oya (+33 co-authors including **D. M. Segura-Cox**)
A&A, 635, 189 (2020)

⟪**16**⟫ *The VLA/ALMA Nascent Disk and Multiplicity (VANDAM) Survey of Orion Protostars. II. A Statistical Characterization of Class 0 and Class I Protostellar Disks*
J. J. Tobin, P. D. Sheehan, S. T. Megeath, A. K. Díaz-Rodríguez, S. S. R. Offner, N. M. Murillo, M. L. R. van 't Hoff, E. F. van Dishoeck, M. Osorio, G. Anglada (+26 co-authors including **D. M. Segura-Cox**)
ApJ, 890, 130 (2020)

⟪**15**⟫ *The VLA/ALMA Nascent Disk and Multiplicity (VANDAM) Survey of Orion Protostars I. Identifying and Characterizing the Protostellar Content of the OMC2-FIR4 and OMC2-FIR3 Regions*
J. J. Tobin, T. S. Megeath, M. van 't Hoff, A. K. Diaz-Rodriguez, N. Reynolds, M. Osorio, G. Anglada, E. Furlan, N. Karnath, S. Offner (+23 co-authors including **D. M. Segura-Cox**)
ApJ, 866, 6 (2019)

⟪**14**⟫ *Dust Polarization Toward Embedded Protostars in Ophiuchus with ALMA. III. Survey Overview*
S. I. Sadavoy, I. W. Stephens, P. C. Myers, L. W. Looney, J. J. Tobin, W. Kwon, B. Commercon, **D. M. Segura-Cox**, T. Henning, & P. Hennebelle
ApJS, 245, 2 (2019)

⟪**13**⟫ *Dust Polarization toward Embedded Protostars in Ophiuchus with ALMA. II. IRAS 16293-2422*
S. I. Sadavoy, P. C. Myers, I. W. Stephens, J. Tobin, W. Kwon, **D. M. Segura-Cox**, T. Henning, B. Comercon, & L. Looney
ApJ, 869, 115 (2018)

⟨**12**⟩ *The VLA/ALMA Nascent Disk and Multiplicity (VANDAM) Survey of Perseus Protostars. VI. Characterizing the Formation Mechanism for Close Multiple Systems*
J. J. Tobin, L W. Looney, Z.-Y. Li, S. I. Sadavoy, M. M. Dunham, **D. M. Segura-Cox**, K. Kratter, C. J. Chandler, C. Melis, R. J. Harris, & L. Perez
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⟨**11**⟩ *ALMA Observations of Polarized 872 μm Dust Emission from the Protostellar Systems VLA 1623 and L1527*
R. J. Harris, E. G. Cox, L. W. Looney, Z.-Y. Li, H. Yang, M. Fernández-López, W. Kwon, S. Sadavoy, **D. M. Segura-Cox**, I. Stephens, & J. Tobin
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⟨**10**⟩ *Dust Polarization toward Embedded Protostars in Ophiuchus with ALMA. I. VLA 1623*
S. I. Sadavoy, P. C. Myers, I. W. Stephens, J. Tobin, B. Commercon, T. Henning, L. Looney, W. Kwon, **D. M. Segura-Cox**, & R. Harris
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⟨**9**⟩ *ALMA Reveals Transition of Polarization Pattern with Wavelength in HL Tau's Disk*
I. W. Stephens, H. Yang, Z.-Y. Li, L. W. Looney, A. Kataoka, W. Kwon, M. Fernández-López, C. L. H. Hull, M. Hughes, **D. M. Segura-Cox** (+3 co-authors)
ApJ, 851, 55 (2017)

⟨**8**⟩ *1.3 mm Polarized Emission in the Circumstellar Disk of a Massive Protostar*
M. Fernández-López, I. W. Stephens, J. M. Girart, L. W. Looney, S. Curiel, **D. M. Segura-Cox**, C. Eswaraiah, & S.-P. Lai
ApJ, 832, 200 (2017)

⟨**7**⟩ *A Triple Protostar System formed via Fragmentation of a Gravitationally Unstable Disk*
J. J. Tobin, K. M. Kratter, M. V. Persson, L. W. Looney, M. M. Dunham, **D. M. Segura-Cox**, Z.-Y. Li, C. J. Chandler, S. I. Sadavoy, R. J. Harris, C. Melis, & L. Perez
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S. Storm, L. G. Mundy, K. I. Lee, M. Fernández-López, L. W. Looney, P. Teuben, H. G. Arce, E. W. Rosolowsky, A. M. Meisner, A. Isella (+10 co-authors including **D. M. Segura-Cox**)
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⟨**5**⟩ *Disc Polarization from Both Emission and Scattering of Magnetically Aligned Grains: the Case of NGC 1333 IRAS 4A1*
H. Yang, Z.-Y. Li, L. W. Looney, E. G. Cox, J. J. Tobin, I. W. Stephens, **D. M. Segura-Cox**, & R. J. Harris
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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 (+10 co-authors including **D. M. Segura-Cox**)
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ApJ, 798, 61 (2015)

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