CHRISTIAN KRAGH JESPERSEN

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Princeton, NJ, 08544, USA

ACADEMIC EMPLOYMENT

Eric and Wendy Schmidt AI in Science Postdoctoral Fellow & Canadian Institute for Theoretical Astrophysics (CITA) Postdoctoral Fellow   Aug. 2026 – Aug. 2028
Institution: University of Toronto, Department of Statistical Sciences/Department of Astronomy and Astrophysics/Canadian Institute for Theoretical Physics
Hosts: Prof. Joshua S. Speagle/Prof. Aviad Levis

Canadian Institute for Theoretical Astrophysics National Fellow   Aug. 2028 – Aug. 2030
Institution: Université de Montréal/Mila - Quebec Artificial Intelligence Institute
Host: Prof. Laurence Perreault Levasseur

EDUCATION

PhD   Astrophysical Sciences, Princeton University   2021 – 2026 (expected)
Committee: D. N. Spergel (co-chair), P. Melchior (co-chair), R. S. Somerville, S. Ho, J. E. Greene
Thesis: *Statistical Models of Galaxies: from Few to Many, from Near to Far*

MA   Astrophysical Sciences, Princeton University   2021 – 2023
BSc   Physics, University of Copenhagen   2018 – 2021
Thesis: *Optimizing Reconstruction and Error Estimation of IceCube Events Using Graph Neural Networks* – advisor: Troels C. Petersen

PROFESSIONAL EXPERIENCE

Guest Researcher   Aug. 2021 –
Institution: Center for Computational Astrophysics (Flatiron Institute)
Hosts: Prof. Shirley Ho/Prof. David N. Spergel

Undergraduate Researcher and Outreach Assistant   Nov. 2018 – Feb. 2021
Institution: Cosmic Dawn Center (DAWN)
Advisor: Ass. Prof. Charles L. Steinhardt/Prof. Sune Toft

Caltech Summer Undergraduate Research Fellow   Jun. 2019 – Sep. 2019
Institution: California Institute of Technology
Advisor: Marvin L. Goldberger Professor of Planetary Science, David John Stevenson

SCIENTIFIC INTERESTS AND EXPERTISE

My research spans theory, computation, instrumentation, and survey-scale observations—from near to far, from extreme single objects to millions of galaxies, and across subfields—unified by a methods-focused approach that develops physics- and geometry-informed machine learning and statistical frameworks to advance galaxy formation and evolution.

- **Geometric and graph-based machine learning** – Designing novel algorithms to connect galaxy properties to their dark matter halo assembly histories and environments with geometric and group-theory informed machine learning.
- **Cosmic variance and clustering** – Measuring high-z clustering with cosmic variance and developing clustering-aware analyses for extreme JWST objects and large surveys.
- **Galaxy SED modeling** – Developing statistically robust techniques for extracting the most informative and physical parameter constraints from galaxy spectra.
- **Survey calibration and instrumentation** – Innovating precision wavelength and flux calibration methods enabled by ML and a deeper understanding of atmospheric emission.
- **Molecular astrophysics** – Constraining the structure of unknown interstellar molecules.

PUBLICATIONS (CITATIONS: 1728, H-INDEX: 17, TOTAL: 34, FIRST AUTHOR: 7)

Publications with Significant Contributions:
^Indicates supervised student
*Indicates co-first authorships

Weibel, A.*, **Jespersen C. K.***, Oesch, P., et al., " Exploring Cosmic Dawn with PANORAMIC II: Cosmic Variance and Galaxy Clustering at z~10", arXiv, arXiv.2512.14212, 10.48550/arXiv.2512.14212

^Krishnaraj, V., Bayer, A. E., **Jespersen, C. K.**, and Melchior, P., "Transfer Learning Beyond the Standard Model", 2025, NeurIPS Machine Learning and the Physical Sciences, arXiv:2510.19168, doi:10.48550/arXiv.2510.19168.

Weibel, A., Oesch, P. A., Williams, C. C., **Jespersen, C. K.,** et al., "Exploring Cosmic Dawn with PANORAMIC I: The Bright End of the UVLF at z~9 -17", 2025, arXiv, arXiv:2507.06292, doi:10.48550/arXiv.2507.06292

Jespersen, C. K., Carnall, A. C., Lovell, C. C., "Explaining Ultramassive Quiescent Galaxies at 3 < z < 5 in the Context of Their Environments", 2025, ApJL, 988, L19, doi:10.3847/2041-8213/adeb7c

Jespersen, C. K., Melchior, P., Spergel, D. N., Goulding, A. D., Hahn, C., Iyer, K. G., "The optical and infrared are connected", 2025, arXiv, arXiv:2503.03816, doi:10.48550/arXiv.2503.03816

Jespersen, C. K., Steinhardt, C. L., Somerville, R. S., Lovell, C. C., "On the Significance of Rare Objects at High Redshift: The Impact of Cosmic Variance", 2025, ApJ, 982, 23, doi:10.3847/1538-4357/adb422

Wu, J. F., **Jespersen, C. K.,** Wechsler, R. H., "How the Galaxy–Halo Connection Depends on Large-scale Environment", 2024, ApJ, 976, 37, doi:10.3847/1538-4357/ad7bb3

Vujeva, L., Steinhardt, C. L., **Jespersen, C. K.,** Frye, B. L., et al., "Efficient Survey Design for Finding High-redshift Galaxies with JWST", 2024, ApJ, 974, 23, doi:10.3847/1538-4357/ad639d

Jespersen, C. K., Lupton, R. H., Gunn, J. E., Price, P. A., et al., "Airglow and the Subaru Night Sky Spectrograph (SuNSS)", 2024, SPIE, 13096, 1309679, doi:10.1117/12.3018016

^Chuang, C., **Jespersen, C. K.,** Lin, Y., Ho, S., Genel, S., "Leaving No Branches Behind: Predicting Baryonic Properties of Galaxies from Merger Trees", 2024, ApJ, 965, 101, doi:10.3847/1538-4357/ad2b6c

Wu, J. F., **Jespersen, C. K.,** "Learning the galaxy-environment connection with graph neural networks", 2023, ICML Machine Learning for Astrophysics, arXiv:2306.12327, doi:10.48550/arXiv.2306.12327

Jespersen, C. K., Cranmer, M., Melchior, P., Ho, S., Somerville, R. S., A. Gabrielpillai, "Mangrove: Learning Galaxy Properties from Merger Trees", 2022, ApJ, 941, 7, doi:10.3847/1538-4357/ac9b18
    - *Also published in a reduced version at ICML 2022*

Steinhardt, C. L., **Jespersen, C. K.,** Linzer, N. B., "Finding High-redshift Galaxies with JWST", 2021, ApJ, 923, 8, doi:10.3847/1538-4357/ac2a2f

Jespersen, C. K., Severin, J. B., Steinhardt, C. L., Vinther, J., et al., "An Unambiguous Separation of Gamma-Ray Bursts into Two Classes from Prompt Emission Alone", 2020, ApJL, 896, L20, doi:10.3847/2041-8213/ab964d

Other Publications:
Gillman, S., Ito, K., Valentino, F., Brammer, G., ..., **Jespersen, C. K.,** ..., et al., "The ionised interstellar medium of DSFGs revealed by JWST/NIRSpec and ALMA: Super-solar metallicity, low ionisation parameters and, typical electron densities", 2026, arXiv, arXiv:2602.18558, doi:10.48550/arXiv.2602.18558

Zhu, P., Ito, K., Valentino, K., Hamadouche, M., ..., **Jespersen, C. K.,** ..., et al., "There and back again? Neutral outflows in z~3.5 quiescent galaxies", 2026, arXiv, arXiv:2602.17767, doi:10.48550/arXiv.2602.17767

Hamadouche, M., Whitaker, K., Valentino, F., Antwi-Danso, J., ..., **Jespersen, C. K.,** ..., et al., "DeepDive: Tracing the early quenching pathways of massive quiescent galaxies at z>3 from their star-formation histories and chemical abundances", 2026, arXiv, arXiv:2602.02485, doi:10.48550/arXiv.2602.02485

Iyer, K. G., Starkenburg, T. K., Bryan, G. L., Somerville, R. S. ..., **Jespersen, C. K.,** ..., et al., "How does feedback affect the star formation histories of galaxies?", 2025, ApJ, 994, 174, doi:10.3847/1538-4357/ae0334

Huang, N., Stiskalek, R., Lee, J., Bayer, A. E., ..., **Jespersen, C. K.,** ..., et al., "CosmoBench: A Multiscale, Multiview, Multitask Cosmology Benchmark for Geometric Deep Learning", 2025, NeurIPS Main Conference, arXiv:2507.03707, doi:10.48550/arXiv.2507.03707

Valentino, F., Heintz, K. E., Brammer, G., Ito, K., ..., **Jespersen, C. K.,** ..., et al., "Gas outflows in two recently quenched galaxies at z = 4 and 7", 2025, A&A, 699, A358, doi:10.1051/0004-6361/202553908

Ito, K., Valentino, F., Brammer, G., Hamadouche, M. L., ..., **Jespersen, C. K.,** ..., et al., "DeepDive: A deep dive into the physics of the first massive quiescent galaxies in the Universe", 2025, arXiv, arXiv:2506.22642, doi:10.48550/arXiv.2506.22642

Baker, W. M., Valentino, F., Lagos, C. d. P., Ito, K., ..., **Jespersen, C. K.,** ..., et al., "Exploring over 700 massive quiescent galaxies at z = 2-7: Demographics and stellar mass functions", 2025, A&A, 702, A270, doi:10.1051/0004-6361/202555829

Ito, K., Valentino, F., Farcy, M., De Lucia, G., ..., **Jespersen, C. K.,** ..., et al., "A merging pair of massive quiescent galaxies at z = 3.44 in the Cosmic Vine", 2025, A&A, 697, A111, doi:10.1051/0004-6361/202453211

Euclid Collaboration, Zalesky, L., Weaver, J. R., McPartland, C. J. R., ..., **Jespersen, C. K.,** ..., et al., "Euclid preparation: TBD. Cosmic Dawn Survey: evolution of the galaxy stellar mass function across 0.2<z<6.5 measured over 10 square degrees", 2025, arXiv, arXiv:2504.17867, doi:10.48550/arXiv.2504.17867

Shuntov, M., Ilbert, O., Toft, S., Arango-Toro, R. C., ..., **Jespersen, C. K.,** ..., et al., "COSMOS-Web: Stellar mass assembly in relation to dark matter halos across 0.2 < z < 12 of cosmic history", 2025, A&A, 695, A20, doi:10.1051/0004-6361/202452570

Paquereau, L., Laigle, C., McCracken, H. J., Shuntov, M., ..., **Jespersen, C. K.,** ..., et al., "Tracing the galaxy-halo connection with galaxy clustering in COSMOS-Web from z = 0.1 to z ~ 12", 2025, A&A, 702, A163, doi:10.1051/0004-6361/202553828

N. Tamura, K. Yabe, S. Koshida, Y. Moritani..., **Jespersen, C. K.,** ..., et al., "Prime Focus Spectrograph (PFS) for Subaru Telescope: progressing final steps to science operation", 2024, SPIE, 13096, 1309605, doi:10.1117/12.3015967

Ito, K., Valentino, F., Brammer, G., Faisst, A. L., ..., **Jespersen, C. K.,** ..., et al., "Size–Stellar Mass Relation and Morphology of Quiescent Galaxies at z ≥ 3 in Public JWST Fields", 2024, ApJ, 964, 192, doi:10.3847/1538-4357/ad2512

S. Hassan, Lovell, C. C., Madau, P., Huertas-Company, M., ..., **Jespersen, C. K.,** ..., et al., "JWST Constraints on the UV Luminosity Density at Cosmic Dawn: Implications for 21 cm Cosmology", 2023, ApJ, 958, L3, doi:10.3847/2041-8213/ad0239

Weaver, J. R., Davidzon, I., Toft, S., Ilbert, O., ..., **Jespersen, C. K.,** ..., et al., "COSMOS2020: The galaxy stellar mass function. The assembly and star formation cessation of galaxies at 0.2< z ≤ 7.5", 2023, A&A, 677, A184, doi:10.1051/0004-6361/202245581

Valentino, F., Brammer, G., Gould, K. M. L., Kokorev, V., ..., **Jespersen, C. K.,** ..., et al., "An Atlas of Color-selected Quiescent Galaxies at z > 3 in Public JWST Fields", 2023, ApJ, 947, 20, doi:10.3847/1538-4357/acbefa

Steinhardt, C. L., ^Mann, W. J., Rusakov, V., **Jespersen, C. K.,** "Classification of BATSE, Swift, and Fermi Gamma-Ray Bursts from Prompt Emission Alone", 2023, ApJ, 945, 67, doi:10.3847/1538-4357/acb999

Leśniewska, A., Michałowski, M. J., Kamphuis, P., Dziadura, K., ..., **Jespersen, C. K.,** ..., et al., "The Interstellar Medium in the Environment of the Supernova-less Long-duration GRB 111005A", 2022, ApJS, 259, 67, doi:10.3847/1538-4365/ac5022

Weaver, J. R., Kauffmann. O. B., Ilbert, O., McCracken, H. J., ..., **Jespersen, C. K.,** ..., et al., "COSMOS2020: A Panchromatic View of the Universe to z~10 from Two Complementary Catalogs", 2022, ApJS, 258, 11, doi:10.3847/1538-4365/ac3078

Book chapters:
Textbook (in Danish): Hansen, C, Bruun, S. H., Robl, J. B., **Jespersen, C. K**., Larsen, J. Ø., Jensen, R. B., Ditlefsen, E. S., Thomsen, J. S. (2019). *Kompendium for Fysik Camp 2019 (Compendium for Physics Camp 2019)*, UNF Print.

Textbook (in Danish): Hansen, C, Bruun, S. H., Robl, J. B., **Jespersen, C. K**., Osman, J. O., Jensen, R. B., Ditlefsen, E. S., Thomsen, J. S. (2018). *Kompendium for Fysik Camp 2018 (Compendium for Physics Camp 2019)*, UNF Print.

First-author papers in preparation/submitted:
*Indicates co-first authorships
Jespersen, C. K.*, Saydjari A. K.*, " Constraints on the Geometric Structure and Physical Parameters of two DIB Carriers in APOGEE" – *Co-first-authored with Andrew K. Saydjari*

Jespersen, C. K., Lupton, R. H., Gunn, J. E., et al., " Making Dynamic Lists of Robust Airglow Lines in the Optical and Near-Infrared with RAGNAR"

Jespersen, C. K., Wu, J. F., Melchior P., et al., "The Equivalence between Environment and Assembly for Galaxy Properties"

TALKS (INVITED: 41)

"Galaxy Formation at Cosmic Dawn from Galaxy Abundances and Clustering", Charting Cosmic Dawn in Copenhagen, Denmark, 2026, Contributed

"Galaxy Formation at Cosmic Dawn from Galaxy Abundances and Clustering", The First Billion Years of the Universe: Five Questions in Five Days, Aspen Center for Physics, 2026, Contributed

"Connecting the optical and infrared", Johns Hopkins/Space Telescope Science Institute Galaxy Evolution Group, 2025, Invited

"Connecting the optical and infrared", University of Texas Austin, Austin, 2025, Invited

"Clustering at ultra-high z", Perimeter Institute Cosmology Seminar, Waterloo, 2025, Invited

"Inferring assembly from environment", Toronto ART Group Meeting, Toronto, 2025, Invited

"Connecting the optical and infrared", Toronto TASTY seminar, Toronto, 2025, Invited

"Connecting the optical and infrared", Chicago SkAI Journal Club, Chicago, 2025, Invited

"Everything is connected", Center for Decoding the Universe, Stanford, 2025, Invited

"Inferring assembly from environment", Harvard AstroAI seminar, Cambridge, 2025, Invited

"The optical and infrared are connected", Harvard Institute for Theory and Computation, Cambridge, 2025, Invited

"Everything is connected", Oskar Klein Centre, Stockholm, 2025, Invited

"Clustering and the statistics of extreme JWST objects", JWST Miracles, University of Geneva, 2025, Contributed

"The optical and infrared are connected", Bristol SBI workshop, 2025, Contributed

"Clustering and the statistics of extreme JWST objects", Annual Danish Astronomy Meeting, 2025, Contributed

"The optical and infrared are connected", Annual Danish Astronomy Meeting, 2025, Poster, Contributed

"The optical and infrared are connected", CCA Cosmology x ML, 2025, Invited

"Everything is connected: galaxy properties couple internally, environmentally, and historically", DAWN Copenhagen, 2024, Invited

"Everything is connected: galaxy properties couple internally, environmentally, and historically", Cambridge, 2024, Invited

"The most massive galaxy we will find with JWST", IAP, Paris, 2024, Contributed

"Everything is connected: galaxy properties couple internally, environmentally, and historically", CosmoStat, Saclay, 2024, Invited

"Everything is connected: galaxy properties couple internally, environmentally, and historically", IAP, Paris, 2024, Invited

"Galaxies, their dark matter environments, formation histories, and couplings", Perimeter Institute, 2024, Invited

"Challenging modelling assumptions by connecting the optical and IR", CCA, 2024, Invited

"New perspectives in galaxy formation", CU Boulder, 2024, Invited

"Challenging modelling assumptions by connecting the optical and IR", Princeton, 2024, Invited

"Challenging modelling assumptions by connecting the optical and IR", UCSC, 2024, Contributed

"Airglow and The Subaru Night Sky Spectrograph (SuNSS)", Hilo, Hawaii, 2024, Invited

"Galaxies, their dark matter environments, and formation histories", Mila/Ciela Institute, 2024, Invited

"The most massive galaxy we will find with JWST", CCA, 2024, Invited

"Airglow and The Subaru Night Sky Spectrograph (SuNSS)", AAS Winter Meeting, 2024, Contributed Poster

"Galaxies and Graphs", Hammers & Nails Conference, 2023, Invited

"Galaxies and Graphs", Center for Computational Astrophysics Cosmic Connections Meeting, 2023, Invited

"Mangrove: Learning Galaxy Properties from Merger Trees", Johns Hopkins/Space Telescope Science Institute Galaxy Evolution Group, 2023, Invited

"Mangrove: Learning Galaxy Properties from Merger Trees", Kavli Institute of Theoretical Physics Data-Driven Galaxy Evolution Workshop, 2023, Invited

"The Unreasonable Efficiency of Graph Neural Networks in Physics", Kavli Institute of Theoretical Physics Data-Driven Galaxy Evolution Workshop, 2023, Invited

"The Unreasonable Efficiency of Graph Neural Networks in Physics", Instituto de Astrofísica de Canarias, 2023, Invited

"The Unreasonable Efficiency of Graph Neural Networks in Physics", Flatiron Institute, 2023, Invited

"Learning Galaxy Properties from Merger Trees with Mangrove", Euclid Consortium Meeting, 2022, Contributed

"Learning Galaxy Properties from Merger Trees with Graph Neural Networks", Ciela Institute (remote), 2022, Invited

"Learning Galaxy Properties from Merger Trees with Graph Neural Networks", Brown University Machine Leaning Seminar, 2022, Invited

"Learning Galaxy Properties from Merger Trees", Flatiron Institute MLxAstro Group, 2021, Invited

"Finding High-Redshift Galaxies with JWST", CCA, 2021, Invited

"Optimizing Reconstruction and Error Estimation of IceCube Events Using Graph Neural Networks," University of Toronto, 2021, Invited

"An Unambiguous Separation of Gamma-Ray Bursts into Two Classes from Prompt Emission Alone," University of Toronto, 2021, Invited

"Optimizing Reconstruction and Error Estimation of IceCube Events Using Graph Neural Networks," IceCube Collaboration, 2021, Invited

"Optimizing Reconstruction and Error Estimation of IceCube Events Using Graph Neural Networks," NBI and Technical University of Munich IceCube Groups, 2021, Invited

"Physics, Science, and How to Become an Astrophysicist," Guest Lecturer, Fredensborg Skole and Frederiksborg Gymnasium og HF, 2020, Invited, For the general public

"Gradient Boosted Reweighting: A tool for improving models trained in Monte Carlo Simulation," Niels Bohr Institute, IceCube Neutrino Group Workshop, 2020, Invited

"An Unambiguous Separation of Gamma-Ray Bursts into Two Classes from Prompt Emission Alone," DAWN Summit, Cosmic Dawn Center, 2020, Contributed

"PSF Deconvolution in the COSMOS2020 Field," Cosmic Dawn Center, DARK, and AstroNu Groups, 2020, Joint talk with others, Internal

"Investigating Radius Increases in Hot Exoplanets," Chambliss Poster Presentation, 235th AAS Meeting, 2019, Contributed

"Possibilities for Undergraduate Research – in Denmark and Overseas," University of Copenhagen STEM Council, 2019, Invited

"Investigating Radius Increases in Hot Exoplanets," Caltech Summer Seminar, 2019, contributed

"A Possible Unambiguous Separation of Gamma-Ray Bursts from Prompt Emission Alone," NBI Astronomy Cake Talk, Cosmic Dawn Center, DARK, and AstroNu Groups, 2019, Invited

MEDIA APPEARANCES

"Connaissez-vous l'airglow, la lueur de l'atmosphère?" Québec Science Magazine, print and online article.

"Solved astronomy mystery after just one year at university," University of Copenhagen University Post, print and online article.

"Tre danske studerende har løst astronomisk mysterium - folk ringer fra hele verden (*Three Danish students have solved an astronomical mystery – people are calling from all over the world*)," TV2, Go'morgen Danmark (*Good Morning Denmark*), national cable.

GRANTS/OBSERVING PROPOSALS

-Amounts in USD unless otherwise specified

Simons Collaboration, Simons Foundation (2025-2028)   **$6,000,000**
Co-I on a renewal grant for the Learning the Universe Collaboration.

JWST – DeepDive (2024-2027)   **47.9 Prime Hours/$600,000**
Co-I on NIRSpec program to observe extremely massively
quiescent galaxies at $z \sim 3 - 4$

JWST – The Beasts in The Bubbles (2023-2026)   **14.8 Prime Hours/$180,000**
Co-I on NIRSpec IFU program to observe most luminous galaxies
at $9 < z < 10$ from the COSMOS2020 catalogue

JWST – PANORAMIC (2023-2027)   **192 Parallel Hours/$298,000**
Co-I on NIRCam pure-parallel program, 40 independent sightlines

Prime Focus Spectrograph (PFS) – Subaru Strategic Program   360 Nights on 8m Subaru
Awarded as PFS collaboration member

COLLABORATION MEMBERSHIPS

Simons Collaboration for Learning the Universe (LtU)
Prime Focus Spectrograph (PFS)
Legacy Survey of Space and Time Dark Energy Science Collaboration (LSST-DESC)
Instrument Center for Danish Astrophysics Working Group on Astronomical Models and Data Analysis
COSMOS Survey
JWST – DeepDive
JWST – The Beasts in The Bubbles
JWST - PANORAMIC

TEACHING

Lecturer, Machine Learning for the Physical Sciences, Princeton, Wintersession, 2025
Lecturer, Quebec Centre for Research in Astrophysics Summer School, Montréal, 2024
Lecturer, Workshop on Building a Physical Understanding of Galaxy Evolution with Data-driven Astronomy, Kavli Institute for Theoretical Physics in Santa Barbara, 2023
Assistant Instructor, "The Universe", AST204 (Undergraduate level), Princeton, 2023
Assistant Instructor, "Modern Statistics", SML505 (Graduate level), Princeton, 2025

ADVISING

Veena Krishnaraj (Undergraduate Student, Princeton University)	Jun. 2024 –
Adi Varshney (Graduate Student, Cambridge University)	Oct. 2023 – Jun. 2024
Suvan Shah (Graduate Student, Cambridge University)	Oct. 2023 – Jun. 2024
Chen-Yu Chuang (Graduate Student, ASIAA/U of Arizona)	May 2022 – Jun 2024
W. J. Mann (Undergraduate, U of Massachusetts, Amherst)	Sep. 2021 – Jan. 2023
A. Mullan (High School Student)	Jul. 2023 – Nov. 2023

COMMUNITY SERVICE AND OUTREACH

Community Garden Coordinator   Oct. 2023 – Oct. 2025
Lakeside Graduate Apartments Committee

Outreach Speaker   Aug. 2023 –
Astronomy on Tap Trenton

Invited Reviewer   Dec 2022 –
ApJ, ApJS, AJ, MNRAS, OJA, A&A, ICML

Graduate Student Peer Mentor   Sep. 2022 –
Princeton University, Department of Astrophysical Sciences

Organizer/Observer   Sep. 2022 –
Princeton University Public Observing Nights

Graduate Student Committee   Sep. 2021 –
Princeton University, Department of Astrophysical Sciences

Head Organizer   May 2019 – Jul. 2021
Physics* – Inspirational Talks, University of Copenhagen

Co-Founder and Co-Organizer   Sep. 2018 – Jul. 2021
Project Eøler Coding Club, University of Copenhagen

Lecturer and Curriculum Co-Author   Jun. 2018 – Aug. 2019
Danish Youth Association of Science

CONFERENCES/WORKSHOPS ORGANIZED

Learning the Universe Collaboration Meeting
Member of the Local Organizing Committee, Princeton University   Mar. 2025

Simulation-Based Inference for Galaxy Formation
Member of the Scientific Organizing Committee, Bristol University   Apr. 2024

HONOURS AND AWARDS

Eric and Wendy Schmidt AI in Science Postdoctoral Fellow   2026
Schmidt Sciences

CITA National Fellowship   2026
Canadian Institute for Theoretical Astrophysics

Best Poster (1st/58)   2025
Annual Danish Astronomy Meeting

Laura Bassi Scholarship   2025
Laura Bassi Foundation

PLANCKS National Qualification (2nd/19 Competing Teams)   2023
Team Qualified for PLANCKS Milano 2023 Final

PLANCKS National Qualification (2nd/27 Competing Teams)   2020
Team Qualified for PLANCKS London 2020 Final

National Team   2018
Danish Physics Olympiad

National Team   2018
Danish Chemistry Olympiad

Youngest Finalist   2017
Danish Physics Olympiad

REFERENCES

Prof. David N. Spergel: davidnspergel@gmail.com (preferred) or president@simonsfoundation.org
Prof. Peter Melchior: peter.m.melchior@gmail.com or melchior@astro.princeton.edu (preferred)
Dr. Rachel S. Somerville: rsomerville@flatironinstitute.org

CODING LANGUAGES & SOFTWARE	SPOKEN/WRITTEN LANGUAGES
Python – Expert	Danish – Native
Linux – Advanced	English – Bilingual Proficiency
Julia – Advanced	Portuguese – Bilingual Proficiency
Git – Intermediate	French – Advanced (Oral)/Advanced (Written)
IDL – Intermediate	Spanish – Advanced (O)/Advanced (W)
HTML – Intermediate	Swedish – Advanced (O)/Intermediate (W)
	Norwegian – Advanced (O)/Intermediate(W)
	German – Intermediate (O)/ Intermediate(W)