

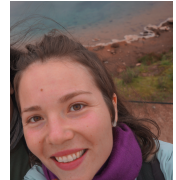





Karen Pardos Olsen, Ph.D.

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Employment History

- 2019 –  **Postdoctoral researcher** Steward Observatory, University of Arizona, Tucson, US. PI on a 2-year NASA ADAP proposal titled "Archival Herschel spectroscopy of star-forming galaxies in the light of multi-phase ISM galaxy simulations".
- 2018 – 2019  **Postdoctoral researcher** Technical University of Denmark, Roskilde, Denmark. Created a new method to quantify the power system flexibility requirements imposed by increased wind and solar power production. Lead the technical assessment of wind and solar installations at a large-scale agricultural business.
- 2015 – 2018  **Postdoctoral researcher** School of Earth and Space Exploration, Arizona State University, Tempe, US. Achieved and held a 3-year prize Exploration fellowship to develop and publish an astrophysical code that simulates observations. Organized a 3-day conference.

Education

- 2011 – 2015  **Ph.D., Copenhagen University** in Astrophysics.
Thesis title: *Observing and Simulating Galaxy Evolution - from X-ray to Millimeter Wavelengths*.
- 2009 – 2011  **M.Sc., Copenhagen University** in Physics.
- 2005 – 2009  **B.Sc., University of Aarhus** in Physics.

Research Publications

- 1 Leung, T. K. D., Olsen, K. P., Somerville, R. S., Dave, R., Greve, T. R., Hayward, C. C., Narayanan, D., & Popping, G. (2020). Predictions of the L[CII] – SFR and [CII] Luminosity Function at the Epoch of Reionization. *arXiv e-prints*, arXiv 2004.11912, arXiv:2004.11912.
- 2 Olsen, K. P., Zong, Y., You, S., Bindner, H., Koivisto, M., & Gea-Bermúdez, J. (2020). Multi-timescale data-driven method identifying flexibility requirements for scenarios with high penetration of renewables. *Applied Energy*, 264, 114702.
 <https://doi.org/https://doi.org/10.1016/j.apenergy.2020.114702>
- 3 Olsen, K., Pallottini, A., Wofford, A., Chatzikos, M., Revalski, M., Guzmán, F., Popping, G., Vázquez-Semadeni, E., Magdis, G., Richardson, M., Hirschmann, M., & Gray, W. (2018). Challenges and Techniques for Simulating Line Emission. *Galaxies*, 6(4), arXiv 1808.08251, 100.
 <https://doi.org/10.3390/galaxies6040100>
- 4 Olsen, K., Greve, T. R., Narayanan, D., Thompson, R., Davé, R., Niebla Rios, L., & Stawinski, S. (2017). SÍGAME Simulations of the [CII], [OI], and [OIII] Line Emission from Star-forming Galaxies at $z \simeq 6$. *ApJ*, 846(2), arXiv 1708.04936, 105.  <https://doi.org/10.3847/1538-4357/aa86b4>
- 5 Olsen, K. P., Greve, T. R., Brinch, C., Sommer-Larsen, J., Rasmussen, J., Toft, S., & Zirm, A. (2016). Simulator of Galaxy Millimetre/submillimetre Emission (SÍGAME): CO emission from massive $z = 2$ main-sequence galaxies. *MNRAS*, 457(3), arXiv 1507.00012, 3306–3333.
 <https://doi.org/10.1093/mnras/stw162>

- 6 Olsen, K. P., Greve, T. R., Narayanan, D., Thompson, R., Toft, S., & Brinch, C. (2015). Simulator of Galaxy Millimeter/Submillimeter Emission (SiGAME): The [C ii]-SFR Relationship of Massive $z = 2$ Main Sequence Galaxies. *ApJ*, 814(1), arXiv 1507.00362, 76. <https://doi.org/10.1088/0004-637X/814/1/76>
- 7 Olsen, K. P., Rasmussen, J., Toft, S., & Zirm, A. W. (2013). Evidence for Widespread Active Galactic Nucleus Activity among Massive Quiescent Galaxies at $z \sim 2$. *ApJ*, 764(1), arXiv 1212.1158, 4. <https://doi.org/10.1088/0004-637X/764/1/4>

Skills

Languages	<div>📖 Danish - native.</div> <div>📖 English - fluent in speaking and writing.</div> <div>📖 Spanish - fluent in speaking and writing.</div>
Coding	<div>📖 Python, MATLAB, SQL, html</div>
Writing	<div>📖 L^AT_EX, OpenOffice, Pages</div>
Operating Systems	<div>📖 Linux, Mac OS X, Windows</div>
Misc.	<div>📖 Academic research, supervising undergrad students, outreach and publishing.</div>