

PUBLICATION LIST

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MAIN PUBLICATIONS

Papers marked with an asterisk (*) are *ALPINE* publication. I am the North America lead PI of *ALPINE*.

- *24. Y. Fudamoto, P. Oesch, **A. L. Faisst**, et al., “The ALPINE-ALMA [CII] Survey: Dust Attenuation Properties and Obscured Star Formation at $z \sim 4.4 - 5.8$ ”, *Astronomy & Astrophysics*, 643, 5, October 2020
- *23. P. Cassata, L. Morselli, **A. L. Faisst**, et al. “The ALPINE-ALMA [CII] Survey: Small Ly α -[CII] Velocity Offsets in Main-Sequence Galaxies at $4.4 < z < 6$ ”, *Astronomy & Astrophysics*, 643, 6, October 2020
- *22. O. LeFèvre, M. Béthermin, **A. L. Faisst** et al., “The ALPINE-ALMA [CII] Survey: Survey Strategy, Observations and Sample Properties of 118 Star-Forming Galaxies at $4 < z < 6$ ”, *Astronomy & Astrophysics*, 643, 1, October 2020
- 21. **A. L. Faisst**, Y. Fudamoto, P. Oesch et al. “ALMA Characterises the Dust Temperature of $z \sim 5.5$ Star-Forming Galaxies”, *Monthly Notices of the Royal Astronomical Society*, 498, 4192, August 2020
- *20. M. Béthermin, M. Dessauges-Zavadsky, **A. L. Faisst**, et al., “The ALPINE-ALMA [CII] Survey: Exploring the Dark Side of Normal Galaxies at the End of Reionization”, *Messenger*, 180, 31, June 2020
- *19. **A. L. Faisst**, D. Schaerer, B. C. Lemaux et al., “The ALPINE-ALMA [CII] Survey: Multi-Wavelength Ancillary Data and Physical Measurements”, *The Astronomical Journal Supplement*, 247, 61, April 2020
- 18. A. J. Pahl, A. Shapley, **A. L. Faisst** et al., “The Redshift Evolution of Rest-UV Spectroscopic Properties to $z \sim 5$ ”, *Monthly Notices of the Royal Astronomical Society*, 493, 3194, April 2020
- 17. C. Leitherer, L. C. Lee, **A. L. Faisst**, “He II Emission from Wolf Rayet Stars as a Tool for Measuring Dust Reddening”, *The Astronomical Journal*, 158, 192, November 2019
- 16. **A. L. Faisst**, P. L. Capak, N. Emami, S. Tacchella, K. Larson, “The Recent Burstiness of Star Formation in Galaxies at $z = 4.5$ from H α Measurements”, *The Astrophysical Journal*, 884, 133, September 2019
- 15. R. Pavesi, D. Riechers, **A. L. Faisst**, G. Stacey, P. Capak, “Low star formation efficiency in typical galaxies at $z = 5 - 6$ ”, *The Astrophysical Journal*, 882, 168, September 2019
- 14. **A. L. Faisst**, A. Prakash, P. L. Capak, B. Lee, “How to Find Variable Active Galactic Nuclei with Machine Learning”, *The Astrophysical Journal Letters*, 881, 9, August 2019
- 13. **A. L. Faisst**, M. Béthermin, P. Capak et al., “Panchromatic Study of the First Galaxies with Large ALMA Programs”, *Proceedings IAU Symposium No. 341*, January 2019, [arXiv: 1901.01268](https://arxiv.org/abs/1901.01268)
- 12. **A. L. Faisst**, D. Masters, Y. Wang, et al., “Empirical modeling of the Redshift Evolution of the [NII]/H α ratio for Galaxy Redshift Surveys”, *The Astrophysical Journal*, 855, 2, March 2018
- 11. I. Davidzon, O. Ilbert, **A. L. Faisst**, et al., “An Alternative Approach to Measure Specific Star Formation Rates at $2 < z < 7$ ”, *The Astrophysical Journal*, 852, 107, January 2018
- 10. **A. L. Faisst**, P. Capak, L. Yan, et al., “Are High Redshift Galaxies Hot? – Temperature of $z > 5$ Galaxies and Implications on their Dust Properties”, *The Astrophysical Journal*, 847, 21, September 2017

9. I. Barisic*, **A. L. Faisst**, P. Capak, et al., “Dust Properties of [CII] detected $z \sim 5.5$ Galaxies: New HST/WFC3 Near-IR Observations”, *The Astrophysical Journal*, 845, 41, August 2017
* Summer student at Caltech (2015)
8. **A. L. Faisst**, M. Carollo, P. Capak, et al., “Constraints on Quenching of $z < 2$ Massive Galaxies from the Evolution of the average Sizes of Star-Forming and Quenched Populations in COSMOS”, *The Astrophysical Journal*, 839, 71, April 2017
7. **A. L. Faisst**, “Revisiting the Lyman Continuum Escape Fraction Crisis: Predictions for $z > 6$ from Local Galaxies”, *The Astrophysical Journal*, 829, 99, September 2016
6. D. Masters, **A. L. Faisst**, & P. Capak, “A tight Relation between N/O Ratio and Galaxy Stellar Mass can explain the Evolution of strong Emission Line Ratios with Redshift”, *The Astrophysical Journal*, 828, 18, September 2016
5. **A. L. Faisst**, P. Capak, I. Davidzon, et al., “Rest-UV Absorption Lines as Metallicity Estimator: the Metal Content of Star-Forming Galaxies at $z \sim 5$ ”, *The Astrophysical Journal*, 822, 29, May 2016
4. **A. L. Faisst**, P. Capak, B. C. Hsieh, et al., “A Coherent Study of Emission Lines from Broad-Band Photometry: Specific Star-Formation Rates and [OIII]/H β Ratio at $3 < z < 6$ ”, *The Astrophysical Journal*, 821, 122, April 2016
3. N. Z. Scoville, **A. L. Faisst**, P. Capak, et al., “Dust Attenuation in High Redshift Galaxies: ‘Diamonds in the Sky’”, *The Astrophysical Journal*, 800, 108, February 2014
2. **A. L. Faisst**, P. Capak, C. M. Carollo, C. Scarlata & N. Z. Scoville, “Spectroscopic Observations of Ly α Emitters at $z = 7.7$ and Implications on Re-ionization”, *The Astrophysical Journal*, 788, 87, June 2014
1. P. Capak, **A. L. Faisst**, J. D. Vieira, et al, “Keck-I MOSFIRE Spectroscopy of the $z \sim 12$ Candidate Galaxy UDFj- 39546284”, *The Astrophysical Journal Letters*, 773, 14, August 2013

WORK IN COLLABORATION

Papers marked with an asterisk (*) are *ALPINE* publication. I am the North America lead PI of *ALPINE*.

- *33. Y. Khusanova, M. Béthermin, O. LeFèvre, ... , **A. L. Faisst**, ... , et al., “The ALPINE-ALMA [CII] Survey: Obscured Star Formation Rate Density and Main Sequence of Star-Forming Galaxies at $z > 4$ ”, *Accepted by Astronomy & Astrophysics*, October 2020
- *32. C. Gruppioni, M. Béthermin, F. Loiacono, ... , **A. L. Faisst**, ... , et al., “The ALPINE-ALMA [CII] Survey: The Nature, Luminosity Function and Star Formation History of Dusty Galaxies up to $z \sim 6$ ”, *Astronomy & Astronomy*, 643, 8, October 2020
- *31. F. Loiacono, R. Decarli, C. Gruppioni, ... , **A. L. Faisst**, ... , et al., “The ALPINE-ALMA [CII] Survey: The Luminosity Function of Serendipitous [CII] Line Emitters at $z \sim 5$ ”, *Accepted by Astronomy & Astronomy*, October 2020
- *30. L. Yan, A. Sajina, F. Loiacono, ... , **A. L. Faisst**, ... , et al., “The ALPINE-ALMA [CII] Survey: [CII]158micron Emission Line Luminosity Functions at $z \sim 4-6$ ”, *Accepted by The Astrophysical Journal*, October 2020
- *29. M. Ginolfi, G. Jones, M. Béthermin, ... , **A. L. Faisst**, ... , et al., “The ALPINE-ALMA [CII] Survey: CGM Pollution and Gas Mixing by Tidal Stripping in a Merging System at $z \sim 4.57$ ”, *Astronomy & Astrophysics*, 643, 7, October 2020
- *28. M. Dessauges-Zavadsky, M. Ginolfi, F. Pozzi, ... , **A. L. Faisst**, ... , et al., “The ALPINE-ALMA [CII] Survey: Molecular Gas Budget in the Early Universe as Traced by [CII]”, *Astronomy & Astrophysics*, 643, 5, October 2020

- *27. D. Schaerer, M. Ginolfi, M. Béthermin, ... , **A. L. Faisst**, ... , et al., “The ALPINE-ALMA [CII] Survey: Little to No Evolution in the [CII]-SFR Relation Over the Last 13 Gyrs”, *Astronomy & Astrophysics*, 643, 3, October 2020
- *26. M. Béthermin, Y. Fudamoto, M. Ginolfi, ... , **A. L. Faisst**, ... , et al., “The ALPINE-ALMA [CII] Survey: Data Processing, Catalogs, and Statistical Source Properties”, *Astronomy & Astrophysics*, 643, 2, October 2020
- *25. S. Fujimoto, J.D. Silverman, M. Béthermin, ... , **A. L. Faisst**, ... , et al., “The ALPINE-ALMA [CII] Survey: Size of Individual Star-Forming Galaxies at $z=4-6$ and Their Extended Halo Structure”, *The Astrophysical Journal*, 900, 1, September 2020
- 24. R.R. Chary, G. Helou, G. Brammer, ... , **A. L. Faisst**, ... , et al., “Joint Survey Processing of Euclid, Rubin and Roman: Final Report”, *arXiv:200810663*, August 2020
- *23. M. Romano, P. Cassata, L. Morselli, ... , **A. L. Faisst**, ... , et al., “The ALPINE-ALMA [CII] Survey: On the Nature of an Extremely Obscured Serendipitous Galaxy”, *Monthly Notices of the Royal Astronomical Society*, 496, 875, August, 2020
- 22. Y. Meštrić, E.V. Ryan-Weber, J. Cooke, ... , **A. L. Faisst**, ... , et al., “Outside the Lyman-Break Box: Detecting Lyman Continuum Emitters at $3.5 < z < 5.1$ with CLAUDS”, *Monthly Notices of the Royal Astronomical Society*, 494, 4986, April 2020
- 21. C. Steinhardt, M. Jauzac, A. Acebron, ... , **A. L. Faisst**, ... , et al., “The BUFFALO HST Survey”, *The Astrophysical Journal Supplement*, 247, 64, April 2020
- 20. C. Steinhardt, J. Weaver, J. Maxfield, ... , **A. L. Faisst**, ... , et al., “A Method to Distinguish Quiescent and Dusty Star-Forming Galaxies with Machine Learning”, *The Astrophysical Journal*, 891, 136, March 2020
- 19. F. Valentino, M. Tanaka, I. Davidzon, ... , **A. L. Faisst**, ... , et al., “Quiescent Galaxies 1.5 Billion Years after the Big Bang and their Progenitors”, *The Astrophysical Journal*, 889, 93, February 2020
- 18. M. Stockmann, S. Toft, A. Gallazzi, ... , **A. L. Faisst**, ... , et al., “X-Shooter Spectroscopy and HST Imaging of 15 Ultra Massive Quiescent Galaxies at $z > 2$ ”, *The Astrophysical Journal*, 888, 4, January 2020
- *17. G. C. Jones, M. Bethermin, Y. Fudamoto, ... , **A. L. Faisst**, ... , et al., “The ALPINE-ALMA [CII] Survey: A Triple Merger at $z \sim 4.56$ ”, *Monthly Notices of the Royal Astronomical Society Letters*, 491, 18, January 2020
- *16. M. Ginolfi, G. C. Jones, M. Bèthermin, ... , **A. L. Faisst**, ... , et al., “The ALPINE-ALMA [CII] Survey: Star Formation-Driven Outflows and Circumgalactic Enrichment in the Early Universe”, *Astronomy & Astrophysics*, 633, 90, January 2020
- 15. M. Tanaka, F. Valentino, S. Toft, ... , **A. L. Faisst**, ... , et al., “Stellar Velocity Dispersion of a Massive Quenching Galaxy at $z = 4.01$ ”, *The Astrophysical Journal*, 885, 34, November 2019
- 14. A. Prakash, R. R. Chary, G. Helou, **A. L. Faisst**, ... , et al., “A Flaring AGN in a ULIRG Candidate in Stipe 82”, *The Astrophysical Journal*, 883, 154, September 2019
- 13. Y. Harikane, M. Ouchi, O. Yoshiaki, ... , **A. L. Faisst**, ... , et al., “SILVERRUSH. VIII. Spectroscopic Identification of Early Large Scale Structure with Protoclusters Over 200 Mpc at $z \sim 6.7$: Strong Associations of Dusty Star-Forming Galaxies”, *The Astrophysical Journal*, 883, 142, September 2019
- 12. G. Popping, D. Narayanan, R. Somerville, **A. L. Faisst**, and M. Krumholz, “The Art of Modeling CO, [CI], and [CII] in Cosmological Galaxy Formation Models”, *Monthly Notices of the Royal Astronomical Society*, 482, 4906, February 2019
- 11. R. Pavesi, D. A. Riechers, C. E. Sharon, ... , **A. L. Faisst**, ... , et al., “Hidden in Plain Sight: A Massive, Dusty, Starburst in a Galaxy Protocluster at $z = 5.7$ in the COSMOS Field”, *The Astrophysical Journal*, 861, 43, July 2018

10. Y. Harikane, M. Ouchi, ... , **A. L. Faisst**, ... , et al., "SILVERRUSH. V. Census of Ly α , [OIII]5007, H α , and [CII]158 μ m Line Emission with \sim 1000 LAEs at $z = 4.9$ -7.0 Revealed with Subaru/HSC", *The Astrophysical Journal*, 859, 84, June 2018
9. G. Hasinger, P. Capak, ... , **A. L. Faisst**, ... , et al., "The DEIMOS 10K Spectroscopic Survey Catalog of the COSMOS Field", *The Astrophysical Journal*, 858, 2, May 2018
8. V. Mehta, C. Scarlata, ... , **A. L. Faisst**, ... , et al., "SPLASH-SXDS Multi-wavelength Photometric Catalog", *The Astrophysical Journal Supplement*, 235, 36, April 2018
7. A. Merson, Y. Wang, ... , **A. L. Faisst**, ... , et al., "Predicting H α Emission Line Galaxy Counts for Future Galaxy Redshift Surveys", *Monthly Notices of the Royal Astronomical Society*, 474, 177, February 2018
6. I. Davidzon, O. Ilbert, ... , **A. L. Faisst**, ... , et al., "The COSMOS2015 galaxy stellar mass function: 13 billion years of stellar mass assembly in 10 snapshots", *Astronomy & Astrophysics*, 605, 70, January 2017
5. S. Hemmati, L. Yan, ... , **A. L. Faisst**, ... , et al., "The Local [C II] 158 μ m Emission Line Luminosity Function", *The Astrophysical Journal*, 834, 16, January 2017
4. B. Darvish, B. Mobasher, ... , **A. L. Faisst**, ... , et al., "Effects of Local Environment and Stellar Mass on Galaxy Quenching out to $z \sim 3$ ", *The Astrophysical Journal Letters*, 825, 113, July 2016
3. B. Trakhtenbrot, F. Civano, ... , **A. L. Faisst**, ... , et al., "Faint COSMOS AGN at $z \sim 3.5$ - I. Black Hole Properties and Constraints on Early Black Hole Growth", *The Astrophysical Journal Letters*, 825, 4, July 2016
2. D. Masters, P. Capak, ... , **A. L. Faisst**, ... , et al., "Mapping the Galaxy Color-Redshift Relation: Optimal Photometric Redshift Calibration Strategies for Cosmology Surveys", *The Astrophysical Journal*, 813, 53, November 2015
1. N. Z. Scoville, S. Arnouts, ... , **A. L. Faisst**, ... , et al., "Evolution of Galaxies and Their Environments at $z = 0.1 - 3$ in COSMOS", *The Astrophysical Journal Supplement*, 206, 3, May 2013

ASTRO2020 WHITE PAPERS

5. P. Capak, M. L. Balogh, J. L. Christiansen, ... , **A. L. Faisst**, ... , et al., "CASTOR: A Wide-Field, UV Space Telescope", *Astro2020 APC White Paper, Bulletin of the American Astronomical Society*, 51, 219, September, 2019
4. R. R. Chary, G. Brammer, P. Capak, ... , **A. L. Faisst**, ... , et al., "JSP: Joint Survey Processing of LSST/Euclid/WFIRST", *Astro2020 APC White Paper, Bulletin of the American Astronomical Society*, 51, 202, September, 2019
3. V. Desai, M. Allen, C. Arviset, ... , **A. L. Faisst**, ... , et al., "A Science Platform Network to Facilitate Astrophysics in the 2020s", *Astro2020 APC White Paper, Bulletin of the American Astronomical Society*, 51, 146, September, 2019
2. Y. Wang, M. Dickinson, L. Hillenbrand, ..., **A. L. Faisst**, ... , et al., "ATLAS Probe: Breakthrough Science of Galaxy Evolution, Cosmology, Milky Way, and the Solar System", *Astro2020 APC White Paper, Bulletin of the American Astronomical Society*, 51, 193, September, 2019
1. R. R. Chary, L. Armus, **A. L. Faisst**, et al., "Cosmology in the 2020s Needs Precision and Accuracy: The Case for Euclid/LSST/WFIRST Joint Survey Processing", *Astro2020 Decadal Survey White Paper, Bulletin of the American Astronomical Society*, 51, 44, May, 2019