

Michael V. Maseda

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Employment and Educational History

2015-Present: NOVA Fellow, Sterrewacht Leiden

2011-2015: IMPRS Student, Max-Planck-Institut für Astronomie/University of Heidelberg, with Hans-Walter Rix and Arjen van der Wel, "Starbursting Dwarf Galaxies at $z > 1$ "

PhD *Magna cum laude*

2007-2011: Student, California Institute of Technology (Caltech), B.S. with Honors in Astrophysics and English

Research Experience

Member of JWST/NIRSpec Galaxy Assembly Science Team (PI: P. Ferruit), MUSE GTO Team (PI: R. Bacon), LEGA-C Survey Team (PI: A. van der Wel), 3D-HST Survey Team (PI: P. van Dokkum)

First Author Publications in Refereed Journals

Maseda, Michael V.; Franx, Marijn; Chevallard, Jacopo; Curtis-Lake, Emma **2019**, MNRAS, 486, 3290: "*Serendipitous Emission Line Sources with JWST/NIRSpec*"

Maseda, Michael V.; Bacon, Roland; Franx, Marijn et al. **2018**, ApJ, 865, L1: "*MUSE Spectroscopic Identifications of Ultra-Faint Emission Line Galaxies with $M_{UV} \sim -15$* "

Maseda, Michael V.; van der Wel, Arjen; Rix, Hans-Walter et al. **2018**, ApJ, 854, 29: "*The Number Density Evolution Of Extreme Emission Line Galaxies In 3D-HST: Results From A Novel Automated Line Search Technique For Slitless Spectroscopy*"

Maseda, Michael V.; Brinchmann, Jarle; Franx, Marijn et al. **2017**, A&A, 608, A4: "*The MUSE Hubble Ultra Deep Field Survey: IV. Global Properties of C III] Emitters*"

Maseda, Michael V.; van der Wel, Arjen; da Cunha, Elisabete et al. **2014**, ApJ, 778, 22: "*Confirmation of Small Dynamical and Stellar Masses for Extreme Emission Line Galaxies at $z \sim 2$* "

Maseda, Michael V.; van der Wel, Arjen; Rix, Hans-Walter et al. **2013**, ApJ, 791, L17: "*The Nature of Extreme Emission Line Galaxies at $z=1-2$: Kinematics and Metallicities From Near-Infrared Spectroscopy*"

Other Selected Publications in Refereed Journals (ADS)

Lam, D., Bouwens, R., Labbé, I. et al. **2019**, A&A, 627, 124: "*The mean $H\alpha$ EW and Lyman-continuum photon production efficiency for faint $z \sim 4-5$ galaxies*"

Erroz-Ferrer, S., Carollo, C., den Brok, M. et al. **2019**, MNRAS, 484, 5009: "*The MUSE Atlas of Disks (MAD): resolving star formation rates and gas metallicities on < 100 pc scales*"

Ploeckinger, S., Schaye, J., Hacar, A., **Maseda, M.** et al. **2019**, MNRAS, 484, 4379: "*Does radiative feedback make faint $z > 6$ galaxies look small?*"

Nanayakkara, T., Brinchmann, J., Boogaard, L. et al. **2019**, A&A, 624, 89: "*Exploring He II $\lambda 1640$ emission line properties at $z \sim 2-4$* "

Barišić, I., van der Wel, A., van Houdt, J., **Maseda, M.** et al. **2019**, ApJ, 872, L12: "*An Absence of Radio-loud Active Galactic Nuclei in Geometrically Flat Quiescent Galaxies: Implications for Maintenance-mode Feedback Models*"

Chevallard, J., Curtis-Lake, E., Charlot, S. et al. **2019**, MNRAS, 483, 2621: "*Simulating and interpreting deep observations in the Hubble Ultra Deep Field with the JWST/NIRSpec low-resolution 'prism'*"

Wisotzki, L., Bacon, R., Brinchmann, J., et al. **2018**, Nature, 562, 229: "*Nearly all the sky is covered by Lyman- α emission around high-redshift galaxies*"

Williams, C., Curtis-Lake, E., Hainline, K., et al. **2018**, ApJS, 236, 33: "*The JWST Extragalactic Mock Catalog: Modeling Galaxy Populations from the UV through the Near-IR over 13 Billion Years of Cosmic History*"

Bacon, R., Conseil, S., Mary, D., et al. **2017**, A&A, 608, A1: “*The MUSE Hubble Ultra Deep Field Survey: I. Survey Description, Data Reduction and Source Detection*”

Inami, H., Bacon, R., Brinchmann, J., et al. **2017**, A&A, 608, A2: “*The MUSE Hubble Ultra Deep Field Survey: II. Spectroscopic Redshifts and Comparisons to Color Selections of High Redshift Galaxies*”

Brinchmann, J., Inami, H., Bacon, R., et al. **2017**, A&A, 608, A3: “*The MUSE Hubble Ultra Deep Field Survey: III. Testing photometric redshifts to 30th magnitude*”

Leclercq, F., Bacon, R., Wisotzki, L., et al. **2017**, A&A, 608, A8: “*The MUSE Hubble Ultra Deep Field Survey VIII : Extended Lyman-alpha haloes around high-redshift star-forming galaxies*”

Momcheva, I., Brammer, G., van Dokkum, P., et al. **2016**, ApJS, 225, 27: “*The 3D-HST Survey: Hubble Space Telescope WFC3/G141 grism spectra, redshifts, and emission line measurements for $\sim 100,000$ galaxies*”

van der Wel, A., Noeske, K., Bezanson, R., et al. **2016**, ApJS, 223, 29: “*The VLT LEGA-C Spectroscopic Survey: The Physics of Galaxies at a Lookback Time of 7 Gyr*”

Schmidt, K., Treu, T., Bradac, M., et al. **2016**, ApJ, 818, 38: “*The Grism Lens-Amplified Survey from Space (GLASS). III. A census of Ly α Emission at $z \geq 7$ from HST Spectroscopy*”

Fumagalli, M., Labbé, I., Patel, S., et al. **2014**, ApJ, 796, 35: “*How dead are dead galaxies? Mid-Infrared fluxes of quiescent galaxies at redshift $0.3 < z < 2.5$: implications for star formation rates and dust heating*”

Skelton, R., Whitaker, K., Momcheva, I., et al. **2014**, ApJS, 214, 24: “*3D-HST WFC3-selected Photometric Catalogs in the Five CANDELS/3D-HST Fields: Photometry, Photometric Redshifts and Stellar Masses*”

van der Wel, A., Franx, M., van Dokkum, P., et al. **2014**, ApJ, 788, 28: “*3D-HST+CANDELS: The Evolution of the Galaxy Size-Mass Distribution since $z=3$* ”

van der Wel, A., van de Ven, G., **Maseda, M.**, et al. **2013**, ApJL, 777, 17: “*Discovery of a Quadruple Lens in CANDELS with a Record Lens Redshift $z=1.53$* ”

Conference Organization

Scientific and Local Organizer for Lorentz Center workshop “Revolutionary Spectroscopy of Today as a Springboard to Webb” in Leiden, NL (Oct 2019)

Scientific and Local Organizer for Lorentz Center workshop “Characterizing Galaxies with Spectroscopy with a View for JWST” in Leiden, NL (Oct 2017)

Colloquium and Review Talks

ESA Scientific Support Office Colloquium, ESTEC in Noordwijk, NL (Sep 2019)

Astronomy Colloquium, Australian National University in Canberra, AS (Jul 2019)

“Formation of Stars and Massive clusters in Dwarf Galaxies over Cosmic Time” in Leiden, NL (Invited review, Feb 2019)

Astronomy Colloquium, Radboud University Nijmegen, NL (Nov 2018)

ESA Scientific Support Office Colloquium, ESTEC in Noordwijk, NL (Jan 2016)

MPIA House Colloquium in Heidelberg, DE (Nov 2012)

Conference and Public Talks since 2017

“Exploring the First Billion Years of the Universe” in Fitzroy, AS (Jul 2019)

European Week of Astronomy and Space Science in Lyon, FR (Jun 2019)

“Uncovering early galaxy evolution in the ALMA and JWST era” in Viano do Castelo, PT (Jun 2019)

“The Faint End of the High- z UV Luminosity Function” in Napa, USA (Discussion chair, Dec 2018)

Netherlands Astronomy Conference in Groningen, NL (May 2018)

“Tokyo Spring Cosmic Lyman-Alpha Workshop (Sakura CLAW)” in Tokyo, JP (Mar 2018)

Astronomy on Tap, Leiden, NL (Feb 2018; **YouTube**)

“Distant Galaxies from the Far South” in Bariloche, AR (Dec 2017)

“Emission Line Galaxies with MOS” in Cambridge, UK (Sep 2017)

“Advances in Galaxy Evolution” in Ringberg, DE (Jun 2017)

Netherlands Astronomy Conference in Nijmegen, NL (May 2017)

Observing Experience

Technical Coordinator of NIRSpec "WIDE" JWST GTO sub-program totaling 114 hours
PI of 1 ESO Very Large Telescope MUSE GTO sub-program totaling 20 hours
PI of 4 ESO Very Large Telescope (X-Shooter, DDT; MUSE; KMOS) programs totaling 22 hours
Co-PI of 1 Subaru Telescope (MOIRCS) program totaling 8 hours
PI of 1 Large Binocular Telescope (MODS-MOS) program totaling 8 hours
Co-I of 7 ESO Very Large Telescope programs (KMOS, X-Shooter; 90 hours), 4 ALMA programs (33 hours), 2 LBT programs (LUCI; 26 hours)
Observer for 16 nights at the Very Large Telescope, Cerro Paranal, CL (Instruments: MUSE and VIMOS)
Observer for 15 nights at the Large Binocular Telescope, Mount Graham, USA (Instruments: MODS, LUCI, and LBC)
Observer for 2 nights at the Subaru Telescope, Mauna Kea, USA (Instruments: MOIRCS)
Developed a custom reduction pipeline for LUCI1-MOS observations

Teaching:

2018-Present: Co-supervisor (with M. Franx), Leiden University PhD Student: Anna de Graaff
2018: Guest lecturer, "Galaxy Evolution" MSc course, Leiden University
2018: Supervisor, LEAPS Summer Undergraduate Research Program (12 weeks); "Spectral Stacking with Ultra-Deep MUSE Spectroscopy," Jayadev Pradeep (Indian Institute of Space Science and Technology), Leiden Observatory
2017-2018: Co-supervisor (with M. Franx), Leiden University Masters Student *Major Onderzoek*: Sander T. M. Schouws
2016: Supervisor, LEAPS Summer Undergraduate Research Program (12 weeks); "High-redshift galaxies with 3D-HST," John Weaver (St. Andrew's, UK), Leiden Observatory
2013: Astronomy Laboratory Experiments (Bachelor/Master), Landessternwarte, University of Heidelberg

Awards

Dieter-Rampacher-Preis 2015: Youngest PhD graduate in the Max Planck Society.

Miscellaneous

Referee for *The Astrophysical Journal* and *The Astrophysical Journal Letters*

Computer Languages: Python, IDL, Mathematica, and HTML

Languages Spoken: English (Native Speaker), Spanish (Proficient - C1), German (Intermediate - B2), Dutch (Intermediate - B1), French (Beginner - A2)