

# Alfonzo Gustavo Bruzual

## List of Publications by Year in descending order

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115  
papers

15,577  
citations

117625

34  
h-index

38395

95  
g-index

117  
all docs

117  
docs citations

117  
times ranked

7011  
citing authors

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 1  | Stellar population synthesis at the resolution of 2003. Monthly Notices of the Royal Astronomical Society, 2003, 344, 1000-1028.  | 4.4 | 8,115     |
| 2  | Stellar masses and star formation histories for 105 galaxies from the Sloan Digital Sky Survey. Monthly Notices of the Royal Astronomical Society, 2003, 341, 33-53.  | 4.4 | 1,892     |
| 3  | Spectral evolution of stellar populations using isochrone synthesis. Astrophysical Journal, 1993, 405, 538.   | 4.5 | 1,511     |
| 4  | Spectral evolution of galaxies. I - Early-type systems. Astrophysical Journal, 1983, 273, 105.  | 4.5 | 453       |
| 5  | STELIB: A library of stellar spectra at $\sim 2000\text{\AA}$ . Astronomy and Astrophysics, 2003, 402, 433-442.   | 5.1 | 382       |
| 6  | Modelling the nebular emission from primeval to present-day star-forming galaxies. Monthly Notices of the Royal Astronomical Society, 2016, 462, 1757-1774.   | 4.4 | 203       |
| 7  | Stellar population synthesis revisited. Astrophysical Journal, 1991, 367, 126.  | 4.5 | 200       |
| 8  | A standard stellar library for evolutionary synthesis. Astronomy and Astrophysics, 2002, 381, 524-538.  | 5.1 | 198       |
| 9  | The QUEST RR Lyrae Survey: Confirmation of the Clump at 50 Kiloparsecs and Other Overdensities in the Outer Halo. Astrophysical Journal, 2001, 554, L33-L36.  | 4.5 | 187       |
| 10 | A Database for Galaxy Evolution Modeling. Publications of the Astronomical Society of the Pacific, 1996, 108, 996.  | 3.1 | 156       |
| 11 | Spectral models for solar-scaled and $\alpha$ -enhanced stellar populations. Monthly Notices of the Royal Astronomical Society, 2007, 382, 498-514.   | 4.4 | 141       |
| 12 | SILVERRUSH. V. Census of Ly $\alpha$ , [O iii] $\lambda$ 5007, H $\alpha$ , and [C ii] $\lambda$ 158 $\mu$ m Line Emission with $\sim 1000$ LAEs at $z = 4.9 \pm 0.7$ . Revealed with Subaru/HSC. Astrophysical Journal, 2018, 859, 84. | 4.5 | 102       |
| 13 | Exploring Cluster Elliptical Galaxies as Cosmological Standard Rods. Astrophysical Journal, 1998, 493, 529-535.   | 4.5 | 94        |
| 14 | The QUEST RR Lyrae Survey. I. The First Catalog. Astronomical Journal, 2004, 127, 1158-1175.  | 4.7 | 93        |
| 15 | SPIDER - VII. Revealing the stellar population content of massive early-type galaxies out to $8 < i > R < / i > < sub > e < / sub >$ . Monthly Notices of the Royal Astronomical Society, 2012, 426, 2300-2317.                         | 4.4 | 88        |
| 16 | Redshift Evolution of the Stellar Populations in Elliptical Galaxies. Astrophysical Journal, 1996, 463, L51-L54.  | 4.5 | 75        |
| 17 | GASP. III. JO36: A Case of Multiple Environmental Effects at Play?. Astrophysical Journal, 2017, 848, 132.  | 4.5 | 66        |
| 18 | Constraining globular cluster formation through studies of young massive clusters - II. A single stellar population young massive cluster in NGC 34. Monthly Notices of the Royal Astronomical Society, 2014, 441, 2754-2759.           | 4.4 | 64        |

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|----|---|-----|-----------|
| 19 | Chemoarchaeological downsizing in a hierarchical universe: impact of a top-heavy IGIMF. Monthly Notices of the Royal Astronomical Society, 2015, 446, 3820-3841.  | 4.4 | 64        |
| 20 | On the interpretation of colors of faint galaxies. Astrophysical Journal, 1980, 241, 25.  | 4.5 | 60        |
| 21 | Consequences of bursty star formation on galaxy observables at high redshifts. Monthly Notices of the Royal Astronomical Society, 2015, 451, 839-848.   | 4.4 | 59        |
| 22 | Using spectroscopic data to disentangle stellar population properties. Astronomy and Astrophysics, 2003, 409, 511-522.  | 5.1 | 56        |
| 23 | A comprehensive comparative test of seven widely used spectral synthesis models against multi-band photometry of young massive-star clusters. Monthly Notices of the Royal Astronomical Society, 2016, 457, 4296-4322.                            | 4.4 | 55        |
| 24 | Modelling ultraviolet-line diagnostics of stars, the ionized and the neutral interstellar medium in star-forming galaxies. Monthly Notices of the Royal Astronomical Society, 2017, 470, 3532-3556.   | 4.4 | 52        |
| 25 | Early Low-mass Galaxies and Star-cluster Candidates at $z \sim 1/4$ Identified by the Gravitational-lensing Technique and Deep Optical/Near-infrared Imaging. Astrophysical Journal, 2020, 893, 60.   | 4.5 | 50        |
| 26 | Variations of the stellar initial mass function in semi-analytical models: implications for the mass assembly and the chemical enrichment of galaxies in the gaea model. Monthly Notices of the Royal Astronomical Society, 2017, 464, 3812-3824. | 4.4 | 48        |
| 27 | Physical interpretation of the near-infrared colours of low-redshift galaxies. Monthly Notices of the Royal Astronomical Society, 2008, 384, 930-942.   | 4.4 | 44        |
| 28 | Abundance patterns in early-type galaxies: is there a kink in the $[Fe/H]$ vs. $[Mg/Fe]$ relation?. Astronomy and Astrophysics, 2015, 582, A46.   | 5.1 | 42        |
| 29 | Strong gravitational lensing and the stellar IMF of early-type galaxies. Monthly Notices of the Royal Astronomical Society, 2016, 459, 3677-3692.   | 4.4 | 42        |
| 30 | Near-Infrared Spectral Features in Single-Aged Stellar Populations. Astrophysical Journal, 2000, 532, 453-460.  | 4.5 | 40        |
| 31 | Matching Stellar Population Models to Bulge Globular Clusters.. Astronomical Journal, 1997, 114, 1531.  | 4.7 | 38        |
| 32 | Infrared Surface Brightness Fluctuations of Magellanic Star Clusters. Astrophysical Journal, 2004, 611, 270-293.  | 4.5 | 35        |
| 33 | Pathways to quiescence: SHARDS view on the star formation histories of massive quiescent galaxies at $1.0 < z < 1.5$ . Monthly Notices of the Royal Astronomical Society, 2016, 457, 3743-3768.   | 4.4 | 35        |
| 34 | Is the escape velocity in star clusters linked to extended star formation histories? Using NGC 7252:W3 as a test case. Monthly Notices of the Royal Astronomical Society, 2016, 457, 809-821.   | 4.4 | 35        |
| 35 | Counter-evolution of faint field galaxies. Astrophysical Journal, 1993, 415, L21.   | 4.5 | 32        |
| 36 | Self-regulated cooling flows in elliptical galaxies and in cluster cores - Is exclusively low mass star formation really necessary?. Astrophysical Journal, 1986, 307, 415.   | 4.5 | 29        |

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|----|--|-----|-----------|
| 37 | Ultraviolet spectra of extreme nearby star-forming regions: Evidence for an overabundance of very massive stars. <i>Monthly Notices of the Royal Astronomical Society</i> , 2021, 503, 6112-6135.                | 4.4 | 27        |
| 38 | To use or not to use synthetic stellar spectra in population synthesis models?. <i>Monthly Notices of the Royal Astronomical Society</i> , 2020, 491, 2025-2042.   | 4.4 | 26        |
| 39 | Tracers of stellar mass loss - I. Optical and near-IR colours and surface brightness fluctuations. <i>Monthly Notices of the Royal Astronomical Society</i> , 2010, 403, 1213-1238.                              | 4.4 | 25        |
| 40 | On the Recovery of Galaxy Properties from SED Fitting Solutions. <i>Publications of the Astronomical Society of the Pacific</i> , 2015, 127, 16-30.  | 3.1 | 24        |
| 41 | A Large-area CCD Camera for the Schmidt Telescope at the Venezuelan National Astronomical Observatory. <i>Publications of the Astronomical Society of the Pacific</i> , 2002, 114, 780-794.                      | 3.1 | 23        |
| 42 | THE STELLAR INITIAL MASS FUNCTION AT 0.9 <math>z</math> <math>\leq 1.5</math>. <i>Astrophysical Journal Letters</i> , 2015, 798, L4.   | 8.3 | 23        |
| 43 | The minor-axis brightness profile of the spiral galaxy NGC 4565 and the problem of massive halos. <i>Astrophysical Journal</i> , 1978, 223, L63.   | 4.5 | 22        |
| 44 | Star formation history of the solar neighbourhood as told by <i>Gaia</i>. <i>Monthly Notices of the Royal Astronomical Society</i> , 2020, 501, 302-328.   | 4.4 | 22        |
| 45 | Post-starburst Galaxies in the Centers of Intermediate-redshift Clusters. <i>Astrophysical Journal</i> , 2022, 930, 43.  | 4.5 | 22        |
| 46 | Discovery of the Optical Transient of GRB 990308. <i>Astrophysical Journal</i> , 1999, 524, L103-L106.   | 4.5 | 21        |
| 47 | Simultaneous analysis of SDSS spectra and <i>GALEX</i> photometry with <math>\text{starlight}</math>: method and early results. <i>Monthly Notices of the Royal Astronomical Society</i> , 2019, 483, 2382-2397. | 4.4 | 21        |
| 48 | Population Synthesis and the Ultraviolet Spectrum of Elliptical Galaxies. <i>Astrophysical Journal</i> , 1993, 417, 102.   | 4.5 | 21        |
| 49 | From kpc to the central parsec of NGC 1097: feeding star formation and a black hole at the same time. <i>Monthly Notices of the Royal Astronomical Society</i> , 2019, 485, 3264-3276.                           | 4.4 | 19        |
| 50 | Direct Constraints on the Extremely Metal-poor Massive Stars Underlying Nebular C iv Emission from Ultra-deep HST/COS Ultraviolet Spectroscopy. <i>Astrophysical Journal</i> , 2022, 930, 105.                   | 4.5 | 19        |
| 51 | Discovery of the Bright Trans-Neptunian Object 2000 EB[TINF]173[TINF]. <i>Astrophysical Journal</i> , 2001, 548, L243-L247.  | 4.5 | 18        |
| 52 | Star clusters as simple stellar populations. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2010, 368, 783-799.  | 3.4 | 18        |
| 53 | Binary stars and the UVX in early-type galaxies. <i>Monthly Notices of the Royal Astronomical Society</i> , 2014, 444, 2571-2579.  | 4.4 | 18        |
| 54 | New Quasars Detected via Variability in the QUEST1 Survey. <i>Astrophysical Journal</i> , 2004, 606, 741-748.  | 4.5 | 18        |

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|----|---|-----|-----------|
| 55 | QUEST1 Variability Survey. II. Variability Determination Criteria and 200k Light Curve Catalog. <i>Astrophysical Journal</i> , 2004, 617, 184-191.  | 4.5 | 17        |
| 56 | Revisiting binary stars in population synthesis models. <i>Monthly Notices of the Royal Astronomical Society</i> , 2013, 431, 2612-2621.  | 4.4 | 17        |
| 57 | The Distribution and Ages of Star Clusters in the Small Magellanic Cloud: Constraints on the Interaction History of the Magellanic Clouds. <i>Astrophysical Journal</i> , 2018, 853, 104.   | 4.5 | 17        |
| 58 | Detection of satellite remnants in the Galactic Halo with Gaia. II. A modified great circle cell method. <i>Monthly Notices of the Royal Astronomical Society</i> , 2011, 415, 214-224.   | 4.4 | 16        |
| 59 | Atmospheric stellar parameters for large surveys using FASMA, a new spectral synthesis package. <i>Monthly Notices of the Royal Astronomical Society</i> , 2018, 473, 5066-5097.  | 4.4 | 16        |
| 60 | Spectral evolution of galaxies. III - Cosmological predictions for the Space Telescope faint object camera. <i>Astrophysical Journal, Supplement Series</i> , 1983, 53, 497.  | 7.7 | 16        |
| 61 | Clues on the history of early-type galaxies from SDSS spectra and GALEX photometry. <i>Monthly Notices of the Royal Astronomical Society</i> , 2020, 497, 3251-3263.  | 4.4 | 15        |
| 62 | Halos of spiral galaxies - Photometry and mass-to-light ratios. <i>Astrophysical Journal</i> , 1978, 225, 56.   | 4.5 | 14        |
| 63 | ADEMIS: A Library of Evolutionary Models for Emission-Line Galaxies. I. Dust-free Models. <i>Astrophysical Journal, Supplement Series</i> , 2003, 149, 313-326.   | 7.7 | 14        |
| 64 | Near-infrared surface brightness fluctuations and optical colours of Magellanic star clusters. <i>Monthly Notices of the Royal Astronomical Society</i> , 2005, 363, 1279-1289.   | 4.4 | 13        |
| 65 | Self-similarity in the chemical evolution of galaxies and the delay-time distribution of SNe Ia. <i>Astronomy and Astrophysics</i> , 2016, 594, A61.  | 5.1 | 13        |
| 66 | REMOVING BIASES IN RESOLVED STELLAR MASS MAPS OF GALAXY DISKS THROUGH SUCCESSIVE BAYESIAN MARGINALIZATION. <i>Astrophysical Journal</i> , 2017, 835, 93.  | 4.5 | 13        |
| 67 | A Novel Method to Automatically Detect and Measure the Ages of Star Clusters in Nearby Galaxies: Application to the Large Magellanic Cloud. <i>Astrophysical Journal</i> , 2017, 845, 56.   | 4.5 | 13        |
| 68 | The CIDA-UCM-Yale shallow survey for emission-line galaxies. <i>Monthly Notices of the Royal Astronomical Society</i> , 2005, 359, 930-940.   | 4.4 | 10        |
| 69 | The challenging task of determining star formation rates: the case of a massive stellar burst in the brightest cluster galaxy of Phoenix galaxy cluster. <i>Monthly Notices of the Royal Astronomical Society</i> , 2017, 465, 3143-3153. | 4.4 | 10        |
| 70 | The Relation Between Globular Cluster Systems and Supermassive Black Holes in Spiral Galaxies: The Case Study of NGC 4258. <i>Astrophysical Journal</i> , 2017, 835, 184.   | 4.5 | 10        |
| 71 | Chemical Evolution History of MaNGA Galaxies. <i>Astrophysical Journal</i> , 2022, 933, 44.   | 4.5 | 10        |
| 72 | Detection of the self-regulation of star formation in galaxy discs. <i>Monthly Notices of the Royal Astronomical Society: Letters</i> , 2019, 487, L61-L66.   | 3.3 | 9         |

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|----|---|-----|-----------|
| 73 | The elliptical galaxy NGC 720: An unequal-mass galaxy merger remnant. <i>Astronomy and Astrophysics</i> , 2005, 436, 57-65.   | 5.1 | 8         |
| 74 | Galaxy properties from J-PAS narrow-band photometry. <i>Monthly Notices of the Royal Astronomical Society</i> , 2017, 471, 4722-4746.   | 4.4 | 8         |
| 75 | Synthetic photometry of OB star clusters with stochastically sampled IMFs: analysis of models and <i>HST</i> observations. <i>Monthly Notices of the Royal Astronomical Society</i> , 2021, 509, 522-549. | 4.4 | 8         |
| 76 | LEAVING THE DARK AGES WITH AMIGA. <i>Astrophysical Journal, Supplement Series</i> , 2015, 216, 13.  | 7.7 | 6         |
| 77 | Modelling dust rings in early-type galaxies through a sequence of radiative transfer simulations and 2D image fitting. <i>Monthly Notices of the Royal Astronomical Society</i> , 2018, 478, 1161-1169.   | 4.4 | 6         |
| 78 | On the age of LBDS 53W091. , 1997, , .  |     | 6         |
| 79 | Spatially Resolved Analysis of Neutral Winds, Stars, and Ionized Gas Kinematics with MEGARA/GTC: New Insights on the Nearby Galaxy UGC 10205. <i>Astrophysical Journal</i> , 2020, 890, 5.                | 4.5 | 6         |
| 80 | The Low-Redshift Quasar-Quasar Correlation Function from an Extragalactic H $\pm$ Emission-Line Survey to $z=0.4$ . <i>Astrophysical Journal</i> , 2001, 548, 585-591.                                    | 4.5 | 5         |
| 81 | PEGASE: a UV to NIR spectral evolution model of galaxies. <i>Astronomy and Astrophysics</i> , 2009, 500, 521-522.   | 5.1 | 5         |
| 82 | Variations of the stellar initial mass function in semi-analytical models II: the impact of Cosmic Ray regulation.. <i>Monthly Notices of the Royal Astronomical Society</i> , 0, , .                     | 4.4 | 5         |
| 83 | Spectroscopy of NGC 4258 Globular Cluster Candidates: Membership Confirmation and Kinematics. <i>Astrophysical Journal</i> , 2019, 876, 39.   | 4.5 | 5         |
| 84 | The UV continuum spectrum of M81. <i>Astrophysical Journal</i> , 1982, 260, 495.  | 4.5 | 5         |
| 85 | Stellar Populations in Local and Distant Galaxies. <i>Astrophysics and Space Science</i> , 2001, 277, 221-230.  | 1.4 | 4         |
| 86 | A quantitative demonstration that stellar feedback locally regulates galaxy growth. <i>Monthly Notices of the Royal Astronomical Society</i> , 2020, 499, 1172-1187.                                      | 4.4 | 4         |
| 87 | High-resolution Spectral Line Indices Useful for the Analysis of Stellar Populations. <i>Astrophysical Journal Letters</i> , 2020, 889, L31.  | 8.3 | 4         |
| 88 | Modelling H2 and its effects on star formation using a joint implementation of gadget-3 and KROME. <i>Monthly Notices of the Royal Astronomical Society</i> , 2021, 504, 2325-2345.                       | 4.4 | 4         |
| 89 | QUEST1 VARIABILITY SURVEY. III. LIGHT CURVE CATALOG UPDATE. <i>Astrophysical Journal, Supplement Series</i> , 2009, 181, 129-134.   | 7.7 | 3         |
| 90 | The resolved star formation history of M51a through successive Bayesian marginalization. <i>Monthly Notices of the Royal Astronomical Society</i> , 2018, 474, 1862-1872.                                 | 4.4 | 3         |

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|-----|---|-----|-----------|
| 91  | Parameter estimation for scarce stellar populations. Monthly Notices of the Royal Astronomical Society, 2019, 486, 5567-5580.   | 4.4 | 2         |
| 92  | Star cluster survival in dark matter haloes: an old cluster in Eridanus II?. Monthly Notices of the Royal Astronomical Society, 2021, 505, 2074-2086.                                 | 4.4 | 2         |
| 93  | Constraints on the dust extinction law of the Galaxy with <i>Swift</i> /UVOT, <i>Gaia</i> , and <i>2MASS</i> . Monthly Notices of the Royal Astronomical Society, 2021, 505, 283-292. | 4.4 | 2         |
| 94  | Identification and Study of Distant Galaxies Through Cluster Lenses. Astrophysics and Space Science, 1998, 263, 55-58.  | 1.4 | 1         |
| 95  | Interactions and the Evolution of Cluster Galaxies. Astrophysics and Space Science, 2001, 276, 757-764.   | 1.4 | 1         |
| 96  | The $\lambda > 4000 \text{ \AA}$ ... Break in Elliptical Galaxies. Astrophysics and Space Science, 2001, 277, 351-351.  | 1.4 | 1         |
| 97  | Population Synthesis in a Universe of Interacting Galaxies. , 1999, , 459-466.  |     | 1         |
| 98  | Infrared background models from galaxy evolution. Advances in Space Research, 1991, 11, 213-222.  | 2.6 | 0         |
| 99  | New Models for the Spectral Evolution of Galaxies. Highlights of Astronomy, 1992, 9, 697-697.   | 0.0 | 0         |
| 100 | Evolutionary Properties of High Redshift Galaxies Seen Through Cluster-Lenses. , 1999, 265, 481-482.  |     | 0         |
| 101 | An Analytical Model of Galaxy Formation. Astrophysics and Space Science, 2001, 276, 1065-1071.  | 1.4 | 0         |
| 102 | The UCM-CIDA-YALE Survey: Looking for the current star-forming galaxies. Astrophysics and Space Science, 2001, 277, 585-585.  | 1.4 | 0         |
| 103 | The W-Function Applied to the Age of Globular Clusters. , 0, , 76-80.   |     | 0         |
| 104 | Stellar populations in normal galaxies. Proceedings of the International Astronomical Union, 2004, 2004, 121-126.   | 0.0 | 0         |
| 105 | Fuelling of Circumnuclear Regions: 3D Spectroscopy View.. Proceedings of the International Astronomical Union, 2006, 2, 125-125.  | 0.0 | 0         |
| 106 | Inverse population synthesis using a dynamical basis. Proceedings of the International Astronomical Union, 2009, 5, 388-389.  | 0.0 | 0         |
| 107 | Population Synthesis: Challenges for the Next Decade. Proceedings of the International Astronomical Union, 2009, 5, 55-64.  | 0.0 | 0         |
| 108 | Extreme Horizontal Branch Stars in Passively Evolving Early Type Galaxies. Proceedings of the International Astronomical Union, 2012, 10, 120-120.                                    | 0.0 | 0         |

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|-----|--|-----|-----------|
| 109 | The LF of TP-AGB stars in the LMC/SMC. Proceedings of the International Astronomical Union, 2012, 8, 282-285.                              | 0.0 | 0         |
| 110 | Exploring the UV excess in star clusters of different mass. Proceedings of the International Astronomical Union, 2015, 12, 143-144.        | 0.0 | 0         |
| 111 | Evolving sparse stellar populations. Proceedings of the International Astronomical Union, 2016, 11, 96-98.                                 | 0.0 | 0         |
| 112 | Stellar parameters with FASMA: a new spectral synthesis package. Proceedings of the International Astronomical Union, 2017, 12, 271-272.   | 0.0 | 0         |
| 113 | Modeling low mass stellar populations. Proceedings of the International Astronomical Union, 2018, 14, 211-212.                             | 0.0 | 0         |
| 114 | On the Thermally Pulsing Asymptotic Giant Branch Contribution to the Light of Nearby Disk Galaxies. Astrophysical Journal, 2021, 908, 110. | 4.5 | 0         |
| 115 | Galaxy Formation and Evolution (Discussion Session). , 1988, , 331-332.  |     | 0         |