ALESSANDRO BRESSAN

CV

APPOINTMENTS

2011- Full Professor, SISSA, via Bonomea, 265, 34136 Trieste, IT
1995-2011 Associate Astronomer INAF, Astronomical Observatory of Padova (Italy).
1989-1995 Associate Researcher at the Astronomical Observatory of Padova (Italy).

MEMBERSHIP

2005 Associazione Gruppo 2003 per la Ricerca Scientifica, Charter Member
1993 International Astronomical Union (IAU)

NATIONAL AND INTERNATIONAL ACKNOWLEDGMENTS

-ISI Highly Cited Researcher-2001 since 2004
-Commendatore dell'Ordine al Merito della Repubblica Italiana, 2006

BIBLIOMETRICS (from NASA Astrophysics Data System)

Published papers: total 464; refereed 248
Total citations 40000; Total number of downloads: 147900;
h-index 78; g-index 206; tori index 113.8;
2 papers with more than 3000 citations (GAIA collab); 2 within 3000-2000 (AB first and second author); 5 within 2000-1000; 55 within 1000-100

ACADEMIC AND PROFESSIONAL ACTIVITIES

2011 to 2016 Head of the Astrophysics Sector, SISSA
2011 to 2016 Elected member of the SISSA Senate

1990-now Visiting Astronomer and Lecturer at several institutes: Universidad Autonoma de Madrid, Spain; Beijing Astronomical Observatory, China, Hofei University, China; INAOE Puebla Mex.
Several Degree, MSc and Ph.D. theses supervised.
Several national and international meetings and workshops attended.

Referee for international astrophysics journals.
Referee for the European Research Council.

NATIONAL AND INTERNATIONAL GRANTS

-Coordinator of the Italian node of the EU Training and Mobility of Researchers (TMR) Research Network "Galaxy Formation and Evolution", (Contract Number ERBFMRX-CT96-0086, PI Simon White, MPI Garching, Munchen), 1996-2000, Euro ~200000.
-PI of the ASI-COFIS Project "A systematic mid-infrared study of Early Type Galaxies with SPITZER", INAF-OAPD, 2007-2010, Euro 82000
-Coordinator of ASI COFIS WP3240 "Formation and Evolution of Stars and Stellar Population Synthesis", (INAF OAPD, INAF OATE, INAF OAFI) 2007-2010, Euro 116000
-Coordinator of RU2 PRIN INAF 2014 "Star formation and evolution in galactic nuclei", SISSA,2014-2016, Euro 12500.
-Coordinator of RU SISSA, PRIN 2017, 20173ML3WW_002, SISSA,2019-, Euro 107000.

RESEARCH INTERESTS

-Stellar Structure and Evolution

Physics of stars, stellar evolutionary tracks.
Formation of stellar Black Holes and prediction of the mass spectrum of compact stellar remnants.
Dark matter annihilation effects on the first stars.

-Population synthesis

Isochrones in several photometric systems for stellar population studies of resolved stellar systems.

-Spectral Evolution of Galaxies.

Panchromatic integrated properties of star clusters and galaxies, from the far ultraviolet to mid/far Infrared and millimetre/radio wavelengths. Chemo-spectro-photometric models of galaxies with integrated spectra and narrow band indices.
Dusty star forming galaxies. Early Type galaxies in the Mid Infrared.

-Interstellar medium

Dust Formation in AGB and Massive stars and prediction of dust yields from stellar environments.

MAIN SCIENTIFIC ACHIEVEMENTS AND SCIENTIFIC IMPACT

-1994 First comprehensive database of stellar tracks and isochrones for SSP studies (Bressan et al 1993, cit. from ADS 629; Bertelli, Bressan et al. 1994, cit. 1533; Girardi, Bressan et al 2000, cit. 2207)
-1994 First consistent chemo-spectrophotometric-galaxy evolution models (Bressan et al 1994, cit. 418)
-1996 First quantification of the downsizing of galaxies (Bressan et al. 1996, cit. 164)
-1998 First stellar isochrones in the MID and FAR infrared (Bressan et al. 1998, cit. 169)
-1998 First consistent spectrophotometric-galaxy evolution models with dust (Silva et al. 1998, cit. 892)
-2002 First panchromatic (Far-UV to radio) spectrophotometric-galaxy evolution models (Bressan et al 2002 cit. 122)
-2006 Discovery of Integrated Stellar Silicate Emission from AGB stars in Early Type Galaxies with SPITZER Space Telescope (Bressan et al 2006, cit. 105)
-2012 Most exhaustive database of stellar evolutionary tracks (PARSEC, Bressan et al 2012, cit. 2340)
-2015 Prediction of the mass spectrum of compact stellar remnants at different metallicities (Spera et al. 2015, cit. 227; main figure used by Abbott et al 2016 in "ASTROPHYSICAL IMPLICATIONS OF THE BINARY BLACK HOLE MERGER GW150914")
-2018 PARSEC provides a superb isochrone fitting to low main sequence stars "Gaia Data Release 2. Observational Hertzsprung-Russell diagrams, GAIA Collaboration, 2018 cit. 525"
-2020 PARSEC paper by Bressan et al 2012, is the most MNRAS cited paper of the decade.
-2020 Author/Co-author of 13 highly cited papers since 2012, of which 7 in small collaborations (ISI WOS)

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Alessandro Bressan