Denis Burgarella

Astronomer, Exceptional Class,
Aix-Marseille University, Laboratoire d'Astrophysique de Marseille

PERSONAL INFORMATION

Birth: 8 May 1960, Marseille, France Citizenship: French
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EDUCATION

1982: Master in Physics
1983: Diplôme d'Etudes Approfondies in Computer Sciences
1984: Diplôme d'Etudes Approfondies in Astrophysics, Images of the Universe
1984-1987: PhD in Astrophysics, Nice University
1987-1989: Post-doc CNES in Laboratoire d'Astronomie Spatiale, Marseille, France
1989-1992: Post-doc ESA at Space Telescope Science Institute, Baltimore, USA
1992-2004: Deputy-Astronomer, Laboratoire d'Astrophysique de Marseille, Marseille, France
2004-Now: Astronomer, Laboratoire d'Astrophysique de Marseille, Marseille, France

RESPONSABILITIES

2009: Member of the French National Committee during the International Year of Astronomy (IYA)
2009: Coordinator of the 2009 IYA for the ¼ South-East of France
2009-2010: President of the French Astronomy and Astrophysics Society
2010-2013: President of the Astrophysics Division of the French Physics Society
2015-2018: President of the IAU Commission on Galaxy Spectral Energy Distributions
2015-2018: Member of the Steering Committee of IAU Div. J (Galaxies and Cosmology)
2018-2021: President of the IAU Division J (Galaxies and Cosmology)
2020-2025: Coordinator of the France – Japan International Research Network

RESEARCH

My works are centered on the formation and evolution of galaxies and the detection, identification and study of galaxies in the early universe using a multi-wavelength approach (Spectral Energy Distribution, SED) via observation and modeling. In Burgarella et al. (2020), we have identified and characterized (some of) the first dust grains created from stars in the universe at redshifts $5 < z < 10$.
To understand galaxies, I have developed, with M. Boquien and a team to seven people, a code that models the emission of galaxies from the X-rays to the sub-mm: CIGALE, Code Investigating GALaxy Emission, http://cigale.lam.fr). CIGALE is parallelized in Python 3 and is designed to fit large samples of several 10^4 observed SEDs by comparing the observed data to several 10^8 models. I am a member of several international collaborations (e.g., Cosmos, AKARI-NEP, Herschel HerMES).
On 1 May 2020: my works led to 339 papers 182 refereed papers with 10545 citations, h-index = 56.

OUTREACH, TEACHING and SERVICE to the COMMUNITY

- I have been involved in a number of public events (e.g. MOOC[1]) and in projects defined for the young public in collaboration with schools at all levels.
- 1/3 of my time is dedicated to teaching at Aix-Marseille University (Stellar Astrophysics, Python)
- I am responsible of a French national service that performs SED fitting with the CIGALE code on galaxy samples (for free) to astronomers world-wide: https://gazpar.lam.fr/

LANGUAGES

Français (mother tongue), English (proficient), Italiano (advanced), Español (pre-intermediate), 日本語 (pre-intermediate, learning).

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[1] MOOC "*Du système solaire au big bang*" (https://www.fun-mooc.fr/courses/course-v1:amu+38001+session02/about) three sessions in French with ~ 6000 people from > 65 countries.