

Daniele Mengoni

## ACADEMIC CAREER

- Associate Professor (FIS/01) at the Dept. of Physics and Astronomy since March 2020.
- Tenure track Rub) (2017-2020) at the Dept. of Physics and Astronomy.
- Fixed-term researcher RUa) (2014-2017) at the Dept. of Physics and Astronomy.
- Co.Co.Co. at Dept physics and Astronomy in quality of PI of FIRB project (2010-2014).
- STFC post-doc research assistant at UWS SUPA (2009-2011).
- Post-doctoral position at University of Padova (2007-2009).
- PhD in Physics, School of Advanced Study at University of Camerino.
- MSc degree in Physics (110/110) at University of Bologna.

## TEACHING EXPERIENCE

- More than hundreds hours per academic year: 108h “Sperimentazione Fisica I” (informatics + physics laboratory), 16h “Radioactivity and Nuclear Measurements”, 12h PhD course “Advance Experimental techniques in Nuclear Physics”.
- Supervisor of 41 students among PhD (5), Master (6), Bachelor (11), Stage (12) and ERASMUS (7) students, from the following Universities: Padova, Milano, Surrey (Guildford, UK), Paris Sud (Orsay, Francia), Imperial College (Londra, UK).

Member of the Doctoral Council in Physics, University of Padova; opponent member in PhD panel in Spain (Valencia) and France (Orsay).

Member of the Scientific Panel of the “NucPhys” ERASMUS MUNDUS Joint Master Degree in Nuclear Physics.

## PROJECTS AND LEADERSHIP

- Scientific coordinator of the project FIRB08-”Detectors for exotic matter” (2010-2014) funded with ~600 keuro.
- Proponent of the CaRiPaRo 2014 Starting Grant, funded with ~235 keuro.
- International deputy-spokesperson of the project GRIT (2010 onward) and member of the management board.
- National co-spokesperson of the gamma-ray array GALILEO at the INFN Laboratori Nazionali di Legnaro (2015 onward).
- National responsible for the complementary instrumentation of the AGATA tracking array installation at LNL (2019 onward).
- International Coordinator of the Working Groups within the NUSPIN - ENSAR2 European Network (2015-2019).

## INFN

- Nominated member of the Nuclear Physics Scientific Committee and coordinator of the Nuclear Physics group in Padova since Nov. 2020;
- “Incarico di Ricerca” INFN Sezione di Padova (2015 onward).

## PUBLICATIONS AND ORAL CONTRIBUTIONS

- WoS based: about 280 publications, h-index=29; total citation ~3250 (~2500 w/o self citation); Bibliometric indexes exceeding threshold for full professor and ASN panel members.

## INTERNATIONAL CONFERENCE and WORKSHOP CONTRIBUTIONS

Speaker at more than 60 International Conferences and Workshops (30 invited) among which prominent nuclear physics conferences. A selection follows:

- Invited talk: IVth Topical Workshop on Modern Aspects in Nuclear Structure (Feb. 2018, Bormio, Italy). Gamma-ray Spectroscopy at LNL .
- Oral contribution DREB16 (11-15 July 2016, Halifax, Nova Scotia, Canada). MUGAST: towards a new Silicon array for high resolution structure and reaction studies.
- Invited talk ARIS, (June 2014, Tokyo). The AGATA campaign at LNL.
- INPC 2013 (Firenze, 2-7 June 2013). The AGATA campaign at LNL.
- Oral Contribution: Nuclear Structure 2010 (Berkeley-USA, August 8-13, 2010) Lifetime measurements in neutron-rich  $44,46$  Ar populated in grazing reactions.

## WORKSHOP/SCHOOL/CONFERENCE Organization

Member of the scientific or organizing committee in more than 30 international Conferences and Workshop (5 as a Chairman). A selection follows:

- Member scientific committee of the International Conference "Nuclear Structure and Dynamics 2019". San Servolo (Venezia) Maggio 2019.
- Member of scientific committee of the International Conference "Quantum Phase Transition" Maggio 2018. Dip. Fisica e Astronomia, Padova.
- Member organizing and scientific committee: "Selected Topics in Nuclear and Atomic Physics", Fiera di Primiero, 2013/2015/2017c/2019 edition.
- Chair GRIT International Workshop, Firenze (2019).
- Member of organizing committee: "EUROSCHOOL on exotic beams". Università di Padova. 2014.
- Chairman of the 3<sup>rd</sup> EGAN School on AGATA data Analysis. Laboratori Nazionali di Legnaro, Legnaro. 2011.

## SEMINARS

Seminars at Beihang University (2), Beijing; Shenzhen University(1), Shenzhen; Chinese Atomic Energy Authority (2) Beijing; ILL, Grenoble (1).

## EDITOR

Editorial Board of Nuclear Physics (specialty section of Frontiers in Physics and Frontiers in Astronomy and Space Sciences), Review Editor (02/2021 onward).

## REFEREE

Nuclear Instruments and Methods in Physics Research Section A, Europhysics Letters (EPL), European Physics Journal, Physica Scripta, IOP Publishing and Nuovo Cimento.

## OUTREACH

Co-proponent of internship activity at Laboratori Nazionali di Legnaro: "Alla ricerca del nucleo Atomico: l'esperimento di Rutherford", since 2015. Activity dedicated to secondary school students.

## SEMINAR CYCLE

Co-organizer of a monthly seminar cycle "NUCLEAR COOKIES" at the Dept. of Physics and Astronomy of the University of Padova, on the recent advances in nuclear physics and astrophysics (2014 onward).

ELECTED MEMBER of the LNL User Board (2016-2019); "Giunta di Dipartimento di Fisica e Astronomia" (2015-2019); EURISOL executive committee (2016 onward).

## RESEARCH ACTIVITIES

In recent years my research has been focused on the studies of nuclear structure of nuclei far from the valley of beta stability and detector development. The experimental activity concentrates on in-beam gamma-ray and particle spectroscopy experiments using arrays of detectors with high-energy resolution and large efficiency (GASP (LNL), EUROBALL (IRES Strasbourg), EXOGAM (GANIL CAEN), RISING (GSI-Darmstadt), AGATA (LNL), with experiments conducted at LNL (INFN), GSI Helmholtz Gesellschaft (Germany), GANIL CAEN (France), MSU East Lansing (USA), RIKEN (Japan) and ANL (USA). I have been the spokesperson of 14 proposals presented at international PAC committees at International facilities (LNL, GANIL, ISOLDE, GSI, RIKEN). Recently I started an applicative research on the energy harvesting aiming at improving the efficiency of beta-voltaic batteries.