
STEFANO DAVINI - CURRICULUM VITAE, 15 GENNAIO 2020

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Profile

I am a Staff Researcher at INFN - Istituto Nazionale di Fisica Nucleare. I am collaborating in the Borexino Experiment at Laboratori Nazionali del Gran Sasso for the detection of solar neutrinos, in the DarkSide Experiment at Laboratori Nazionali del Gran Sasso for the detection of massive particle dark matter, and in the Euclid Consortium.

Research Experience

Ricercatore III livello, INFN; Genova, Italy — 2017-Present

Post Doc, GSSI; L'Aquila, Italy — 2015-2017

Research Associate, University of Houston; Houston, TX, US — 2012-2015

PhD Student, Università di Genova; Genova, Italy — 2009-2012

Education

Università degli Studi di Genova — Dottorato di Ricerca in Fisica - 2012

Università degli Studi di Genova — Laurea Specialistica in Fisica - 2008

Università degli Studi di Genova — Laurea Triennale in Fisica - 2006

Teaching Experience

Professore a contratto per il corso "Fisica Sperimentale con applicazioni al sistema terra" - Scienze Geologiche, UNIGE — A.A. 2019-2020

Professore a contratto per i corsi "Fisica Sperimentale con applicazioni al sistema terra" e "Fisica Sperimentale" - Scienze Geologiche, UNIGE — A.A. 2018-2019

Recent Conferences

- Light Dark Matter (Venezia, Nov 2019)
- 53rd Rencontres de Moriond - Cosmology (La Thuile, Mar 2018)
- Beyond the Standard model with Neutrino and Nuclear Physics (Brussels, Dec 2017)



Recent Publications

- B. Bottino et al. "Front-end electronic system for large area photomultipliers readout". Nuclear Instruments & Methods A, 936 (2019) 325-326
- M. Cadeddu et al. "Directional dark matter detection sensitivity of a two-phase liquid argon detector". Journal of Cosmology and Astroparticle Physics, 2019 (2019): 014 [arXiv: 1704.03741]
- Borexino Collaboration. "Modulation of the cosmic muon signal in ten years of Borexino data". Journal of Cosmology and Astroparticle Physics, 2019 (2019): 046 [arXiv:1808.04207]
- Borexino Collaboration. "Comprehensive measurement of pp-chain solar neutrinos". Nature, 562 (2018) 505
- Borexino Collaboration. "The Monte Carlo simulation of the Borexino detector". Astroparticle Physics, 97 (2018), 136-159
- A. Caminata et al. "Search for geo-neutrinos and rare nuclear processes with Borexino". International Journal of Modern Physics A, 33 (2018), 1843009 [arXiv: 1704.03741]
- DarkSide Collaboration. "DarkSide-50 532-day Dark Matter Search with Low-Radioactivity Argon". Physical Review D, 98 (2018): 102006. [arXiv: 1802.07198]
- DarkSide Collaboration. "Low-mass Dark Matter Search with the DarkSide-50 Experiment". Physical Review Letters, 121 (2018): 081307. [arXiv: 1802.06994]
- DarkSide Collaboration. "Constraints on Sub-GeV Dark Matter-Electron Scattering from the DarkSide-50 Experiment". Physical Review Letters, 121 (2018): 111303. [arXiv: 1802.06998]
- DarkSide Collaboration. "Electroluminescence pulse shape and electron diffusion in liquid argon measured in a dual-phase TPC". Nuclear Instruments and Methods A, 904 (2018): 23-34. [arXiv: 1802.01427]
- Borexino Collaboration. "Limiting neutrino magnetic moments with Borexino Phase-II solar neutrino data". Physical Review D, 96 (2017) 091103
- Borexino Collaboration. "A Search for Low-energy Neutrinos Correlated with Gravitational Wave Events GW 150914, GW 151226, and GW 170104 with the Borexino Detector". Astrophysical Journal, 850 (2017), 21
- Borexino Collaboration. "Seasonal modulation of the Be-7 solar neutrino rate in Borexino". Astroparticle Physics, 92 (2017) 21-29
- DarkSide Collaboration. "Cryogenic Characterization of FBK RGB-HD SiPMs". Journal of Instrumentation, 12 (2017): P09030. [arXiv: 1705.07028]
- DarkSide Collaboration. "DarkSide-20k: A 20 Tonne Two-Phase LAr TPC for Direct Dark Matter Detection at LNGS". The European Physical Journal Plus, 133 (2018): 131 [arXiv: 1707.08145]
- DarkSide Collaboration. "The Electronics, Trigger and Data Acquisition System for the Liquid Argon Time Projection Chamber of the DarkSide-50 Search for Dark Matter". Journal of Instrumentation, 12 (2017): P12011. [arXiv: 1707.09889]
- DarkSide Collaboration. "CALIS – a CALibration Insertion System for the DarkSide-50 dark matter search experiment". Journal of Instrumentation, 12 (2017): T12004. [arXiv: 1611.02750]
- DarkSide Collaboration. "Simulation of argon response and light detection in the DarkSide-50 dual phase TPC". Journal of Instrumentation, 12 (2017): P10015. [arXiv: 1707.05630]

Stefano Borelli
