

Allegato alla domanda di partecipazione
Curriculum formativo, didattico, scientifico e professionale del candidato

Dichiarazione sostitutiva di certificazioni

(Art. 46, D.P.R. 28 dicembre 2000 n. 445)

Dichiarazione sostitutiva dell'atto di notorietà

(da sottoscrivere davanti all'impiegato addetto o da presentare o spedire con la fotocopia di un documento di identità)

(Art. 47, D.P.R. 28 dicembre 2000 n. 445)

Estremi del bando di selezione	D.R. 1098 del 5/11/2020, CODICE SELEZIONE: 95A_20
Informazioni aggiornate al	8 gennaio 2025
Nome e cognome	Valerio Sarritzu

Esperienza professionale

Periodo	Ente	Principali attività e responsabilità
2012	Università degli Studi di Cagliari	Tutorato per “Fisica e Metodo Scientifico” (LT in Informatica)
2013-2014	Università degli Studi di Cagliari	Borsa di ricerca “Spettroscopia ottica risolta in tempo di nanocristalli colloidali per la fotocatalisi”
2015	Università degli Studi di Cagliari	Tutorato per “Laboratorio I” (LT in Fisica)
2016	Università degli Studi di Cagliari	Tutorato per “Laboratorio I” (LT in Fisica)
2015	Università degli Studi di Cagliari	Tutorato per “Photonics” (LM in Fisica)
2016	Università degli Studi di Cagliari	Tutorato per “Photonics” (LM in Fisica)
2014–2018	Università degli Studi di Cagliari	Dottorato di ricerca in fisica
2018–presente	Università degli Studi di Cagliari	Ricercatore postdoc (borsa/assegni di ricerca)
2023–presente	CERN	Project Associate

Istruzione, formazione (es. titoli di studio, certificazioni professionali/linguistiche/informatiche)

Data	Titolo / Principali tematiche	Ente
26/01/2010	Laurea in Fisica con tesi “Proprietà ottiche di nanocristalli in campo elettrico” e voto 110/110 e lode	Università degli Studi di Cagliari
23/04/2013	Laurea Magistrale in Fisica con tesi “Proprietà ottiche di solidi di nanocristalli” e voto 110/110 e lode	Università degli Studi di Cagliari
13/02/2013	IELTS Academic 8.5 overall band score (CEFR C2)	British Council, IDP: IELTS Australia, and Cambridge ELA
28/03/2018	Dottorato di Ricerca in Fisica con tesi “Photophysics of organic/inorganic lead halide perovskites”	Università degli Studi di Cagliari

Pubblicazioni / Convegni

<i>Time performance of Analog Pixel Test Structures with in-chip operational amplifier implemented in 65 nm CMOS imaging process. Nuclear Instruments and Methods in Physics Research Section A 1070 (2025)</i>
<i>Characterisation of analogue Monolithic Active Pixel Sensor test structures implemented in a 65 nm CMOS imaging process. Nucl. Instrum. Methods Phys. Res. A 1069 (2024)</i>
<i>A Compact Front-End Circuit for a Monolithic Sensor in a 65-nm CMOS Imaging Technology.</i>

IEEE Trans. Nucl. Sci. 70 (2023)
<i>Digital pixel test structures implemented in a 65 nm CMOS process.</i> Nuclear Instruments and Methods in Physics Research Section A, 2023
<i>Design of an analog monolithic pixel sensor prototype in TPSCo 65 nm CMOS imaging technology.</i> Journal of Instrumentation, 2023
<i>Letter of Intent: the NA60+ experiment.</i> CERN-SPSC-2022-036, 2022
<i>Optimization of a 65 nm CMOS imaging process for monolithic CMOS sensors for high energy physics.</i> Proceedings of Science, 2022
<i>Charge sensing properties of monolithic CMOS pixel sensors fabricated in a 65 nm technology.</i> Nuclear Instruments and Methods in Physics Research Section A 2022
<i>Optical Excited State Properties of Halide Perovskite.</i> Organic-Inorganic Halide Perovskite 2022
<i>Polaron Plasma in Equilibrium with Bright Excitons in 2D and 3D Hybrid Perovskites.</i> Advanced Optical Materials 2021
<i>Long-lived electrets and lack of ferroelectricity in methylammonium lead bromide $CH_3NH_3PbBr_3$ ferroelastic single crystals.</i> Physical Chemistry Chemical Physics 2021
<i>Ag/In lead-free double perovskites.</i> EcoMat 2020
<i>A convenient preparation of nano-powders of Y_2O_3, $Y_3Al_5O_{12}$ and $Nd:Y_3Al_5O_{12}$ and study of the photoluminescent emission properties of the neodymium doped oxide.</i> Inorganica Chimica Acta 2017
<i>Photoexcitations and Emission Processes in Organometal Trihalide Perovskites.</i> In <i>Perovskite Materials - Synthesis, Characterisation, Properties, and Applications; Perovskite Materials - Synthesis, Characterisation, Properties, and Applications</i> ; InTech: Rijeka, 2016
<i>Light Conversion Control in NIR-Emissive Optical Materials Based on Heterolanthanide Er_xYb_{3-x} Quinolinolato Molecular Components.</i> Chem. Mater. 2015, 27 (11), 4082–4092
<i>Nanosheets of Two-Dimensional Neutral Coordination Polymers Based on Near-Infrared-Emitting Lanthanides and a Chlorocyananilate Ligand</i> Chem. Mater. 2018, 30, 6575–6586
<i>Near IR to Red Up-Conversion in Tetracene/Pentacene Host/Guest Cocrystals Enhanced by Energy Transfer from Host to Guest.</i> J. Phys. Chem. C 2015, 119 (31), 17495–17501
<i>Absorption F-Sum Rule for the Exciton Binding Energy in Methylammonium Lead Halide Perovskites.</i> J. Phys. Chem. Lett. 2015, 6 (22), 4566–4572
<i>Self-Assembled Lead Halide Perovskite Nanocrystals in a Perovskite Matrix.</i> ACS Energy Lett. 2017, 2 (4), 769–775
<i>Can Trihalide Lead Perovskites Support Continuous Wave Lasing?</i> Advanced Optical Materials 2015, 3 (11), 1557–1564
<i>Perovskites Excitonics: Primary Exciton Creation and Crossover from Free Carriers to a Secondary Exciton Phase</i> Adv. Optical Mater 2018, 6, 1700839
<i>Direct or Indirect Bandgap in Hybrid Lead Halide Perovskites?</i> Advanced Optical Materials 2018, 6, 1701254
<i>Correlated electron–hole plasma in organometal perovskites.</i> Nature Communications 2014, 5
<i>Optical excited state properties of halide perovskites in Multifunctional organic-inorganic halide perovskite;</i> Pan Stanford Publishing: Singapore (in press)
<i>Paving the way for solution-processable perovskite lasers.</i> Phys. Status Solidi C 2016, 13 (10-12), 1028–1033
<i>Perovskites photophysics: half-organic, half-inorganic and a quarter of magic</i> Proceedings of the 2017 Conference on Lasers and Electro-Optics Europe & European Quantum Electronics Conference (CLEO/Europe-EQEC)
<i>Optical determination of Shockley-Read-Hall and interface recombination currents in hybrid perovskites.</i> Sci. Rep. 2017, 7, 1–10

<i>Ag/In lead-free double perovskites</i> EcoMat. 2020, 2, e12017;
<i>Bifacial Diffuse Absorptance of Semitransparent Microstructured Perovskite Solar Cells</i> ACS Appl. Mater. Interfaces 2019, 11, 10021–10027;
<i>Layered Germanium Hybrid Perovskite Bromides: Insights from Experiments and First-Principles Calculations</i> Advanced Functional Materials 2019, 29, 1903528;
Editor della pubblicazione <i>Proceedings of the 8th YRM</i> per IOP
HF-HNC 2024, Guangzhou (China) – Contributed talk: “ALICE 3: A next-generation heavy-ion experiment at the LHC”
IEEE NSS MIC RTSD 2024, Tampa (USA) – Poster: “Calibration of the ALICE Inner Tracking System for the LHC Run 3”
CEPC 2023, Nanjing (China) – Invited talk: “The ALICE Inner Tracking System Upgrade”
TIPP 2023, Cape Town (South Africa) – Oral presentation: “The ALICE ITS Upgrade”
PIXEL 2022, Santa Fe (USA) — Invited plenary talk: "The ALICE Pixel Readout Upgrade"
TWEPP 2022, Bergen (Norway) — Poster presentation: "A Readout System for Monolithic Pixel Sensor Prototypes Towards the ITS3 Upgrade of the ALICE Inner Tracking System"
ISOPHOS-MAPHEBIO 2017, Arbatax — Poster: “ <i>All-optical diagnostics of efficiency losses in¹_{SEP} perovskite solar cells</i> ”
8th Young Researcher Meeting, Cagliari — <i>Conference organizer and referee</i>
E-MRS 2016 Spring Meeting, Lille — Presentazione: “ <i>Paving the way for solution-processable perovskite lasers</i> ”
PSCO-2015, Losanna — Poster: “ <i>Amplified spontaneous emission from photoexcited electron-hole plasma in lead halide perovskites</i> ”
HOPV15, Roma

Altre attività scientifiche

Women in Science 2022 (online) — online tutoring in an event on inclusive science
Solid State Physics 5th Course on "Materials for Energy and Sustainability V" and 3rd Course of the "EPS-SIF International School on Energy”

Cagliari, 8 gennaio 2025