

Curriculum Vitae – Arianna Steri

PROFESSIONAL EXPERIENCE

Since Sept. 2023: Adjunct professor for the integrated course "The Foundations of Life" at the University of Nuoro.

Since Sept. 2024: Technical consultancy and assistance for executive functions at A Meras Annos srl, related to the industrial investment program at the Seruci mining site.

Since Sept. 2024: Teacher training for the INFN Cagliari course "AggiornaMenti", aimed at middle school teachers.

Since July 2024: Member of the Einstein Telescope collaboration.

Since April 2024: Co-author of the TV program "Contus de Scienza", a physics documentary in Sardinian language.

Since Oct. 2023: Ph.D. candidate (Cycle XXXIX) in "Science and Technology for Innovation" at the University of Cagliari (PNRR-funded and co-financed by the company A Meras Annos). Activities: Simulation and design of distillation columns for ^{13}C production. Support to the CEO in coordinating project designers and drafting the process technical report for the preliminary project at the Seruci site.

Since Jan. 2024: Associated with INFN - Cagliari Section.

Since Jan. 2023: Collaboration with the Department of Physics, University of Cagliari in Physics Education.

July 2023: Chemistry instructor at E-campus University, for university entrance exam prep courses.

Since Nov. 2022: Scientific outreach events on cryogenic distillation processes.

Dec. 2021 – Oct. 2023: INFN Cagliari research fellowship, Call n. 23432/2021, "Process studies and support for ^{40}Ar production in the ARIA project". Research on process simulation, data analysis, and column hydraulics; maintenance and monitoring of cryogenic pumps, vacuum systems, compressors, and stirling machines; setup and basic tuning of PID controllers; plant operation and control during start-up, shut-down, and distillation phases at the Seruci 0 experimental plant. Drafting of SOPs and technical manuals; configuration support for the gas sampling system (UGA); planning of infrastructure and process test phases. Training for Fondazione Aria staff; public outreach and educational activities including the ARIA Masterclass (Catania, Dec. 2022), using active-learning tools (text-enriched problems, cooperative learning,

interdisciplinary problem-solving). Assessment through post-tests and final surveys on learning outcomes.

June 2021 – May 2022: Majority Municipal Councillor, San Giovanni Suergiu.

Dec. 2019 – Dec. 2021: INFN Cagliari Scholarship, Call n. 21343.

Sept. – Nov. 2019: T.Am.Co s.r.l. – ARIA Project.

May – Aug. 2019: Internship with Princeton University for the ARIA Project – Monte Sinni mine, Carbosulcis S.p.A.

Sept. 2018 – Mar. 2019: Postgraduate internship – IMI Critical Engineering – REMOSA S.r.l., Cagliari.

July – Dec. 2017: Research internship – Electrochemical Engineering Lab, University of Cagliari – industrial wastewater treatment.

Mar. – Sept. 2014: Internship – Sardegna Ricerche – water treatment research.

EDUCATION

Sept. 2024: Safety training courses.

July 2024: Bibliographic Research Strategies course – University of Cagliari.

June 2024: Policy and Analysis Planning course – University of Cagliari.

May 2023: Training course "Towards Inclusive Science Communication".

Feb. 23, 2023: Master's Degree in DSA – E-campus University.

Nov. 2021: High-risk workplace safety training (eForm).

Apr. 2021: Vacuum and Cryogenics course – INFN Cagliari.

2019 (second session): Professional Engineering License – University of Cagliari.

Mar. 29, 2021: Working at Heights training – Associazione Il Volo.

Feb. 2018: MSc in Chemical and Biotechnological Process Engineering – University of Cagliari.

Nov. 2014: BSc in Chemical Engineering – University of Cagliari.

July 2010: High school diploma – Scientific-Technological curriculum, "Brocca" Experimental Program – E. Lussu.

PUBLICATIONS AND CONFERENCES

Separating ^{39}Ar from ^{40}Ar by cryogenic distillation with Aria for dark-matter searches, Agnes, P. et al., Eur. Phys. J. C 81, 359 (2021)

Measurement of isotopic separation of argon with the prototype of the cryogenic distillation plant Aria for dark matter searches, EPJC (2023)

Using storytelling to foster the teaching and learning of gravitational waves physics at high school, M. Tuveri, A. Steri, D. Fadda, Physics Education 59 045031 (2024)

Promoting the learning of modern and contemporary physics in high schools in informal and non-formal contexts, Tuveri et al., Il Nuovo Cimento C, 2023, 46(6), 210 – DOI: 10.1393/ncc/i2023-23210-y

Talk at 109th SIF Congress

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Talk at 4th WCPE in Krakow (August 2024)

Talk at DarkSide-20k Collaboration Summer Meeting (June 2022)

Local committee – III CoofIS08 Conference in Cagliari (role: local organizer)

Invited speaker – DarkSide Young Academy (March 4–7, 2025)

Talk at JEEP – Paris (2025)

LANGUAGES

English: C1

French: A1

TECHNICAL SKILLS

Basic experience with chemical analysis instruments: TGA, ion chromatography, HPLC, spectrophotometer, UGA.

Simulation software: Aspen Hysys V10®

OTHER INFORMATION

Plays the B \flat clarinet since 2005

Plays the French horn (F/B \flat) since 2015

B Driving License

PERSONAL INFORMATION

Email: arianna.steri@unica.it

Cagliari, 14/04/2025

I hereby authorize the processing of my personal data pursuant to EU Regulation 2016/679.