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📅 Date/place of birth: 1 Nov 1972, Athens, Greece 🇬🇷 Hellenic (Greek) nationality

Education

- 1998 – 2002 PhD in Physics (Distinction – *Excellent*)
National & Kapodistrian University of Athens (NKUA)
Title: *Prospects on Higgs boson discovery and physics beyond the Standard Model at the LHC and development of the Transition Radiation Tracker of the ATLAS experiment*
- 1996 – 1998 MSc in Nuclear and Particle Physics, NKUA
Dissertation: *Study of supersymmetric channels with the ATLAS/LHC detector*
- 1991 – 1996 BSc in Physics (First-Class Honours – *Excellent* – 8.62/10), NKUA
Diploma thesis: *Study of straw proportional tubes for the Transition Radiation Tracker of the ATLAS experiment at the Large Hadron Collider*

Professional Record

- 2023 – present Senior Research Scientist “Investigadora Científica” (permanent faculty), Instituto de Física Corpuscular (IFIC), joint centre University of Valencia & National Research Council (CSIC) – Centre of Excellence “Severo Ochoa”
- 2023 – 2024 Visiting professor at National Technical University of Athens, funded by Spanish Ministry of Science, Innovation & Universities (6 months)
- 2016 – 2023 Tenured Research Scientist “Científica Titular” (permanent faculty), IFIC Valencia
- 2022 Visiting professor at NKUA, funded by Generalitat Valenciana (6 months)
- 2015 CERN Corresponding Associate (4 months)
- 2013 – 2015 Researcher “JAE-Doc” at IFIC Valencia
- 2011 Visiting researcher, CERN, funded by University of Valencia (4 months)
- 2011 CERN Corresponding Associate (2 months)
- 2008 – 2012 Researcher “Ramón y Cajal” (junior faculty) at IFIC Valencia
- 2008 Visiting researcher, CERN, funded by Generalitat Valenciana (5 months)
- 2006 CERN Corresponding Associate (3 months)
- 2006 – 2007 Research associate at IFIC Valencia
- 2004 – 2006 European Commission RTN postdoctoral fellow at IFIC Valencia
- 2001 – 2003 CERN Fellow at Experimental Physics (EP) Division
- 2001 CERN Unpaid Scientific Associate with Subsistence Allowance at EP Division
- 1998 – 2001 CERN Doctoral Student at EP Division
- 1996 – 1998 Research associate at Physics Department, NKUA, Athens

Research Interests

Experimental Particle Physics: ATLAS – MoEDAL-MAPP – ILC – ILD – FCC – Supersymmetry – Long-lived particles – Magnetic monopoles – Millicharged particles – Dark matter – Higgs boson – Leptoquarks
Instrumentation: Semiconductor detectors – Gaseous detectors – Transition radiation
Astroparticle Data Analysis: Dark energy – Dark matter – Quantum gravity – Lorentz invariance violation

Awards and Distinctions

- 1998 – 2021 Four periods of six-year quality research (**Sexenios**) recognised by Spanish National Commission for Research Activity Evaluation (CNEAI)
- 1997 – 2021 Five periods of five-year research achievements (**Quinquenios**) recognised by Spanish Evaluating Commission for Scientific-Technical Activity Performance (CEDACT)
- 2018 **XIII Scientific-Technical Prize “City of Algemesi”** (Spain) for young researchers awarded to E Romero for her PhD thesis research supervised by V A Mitsou
- 2017 **Leonardo Grant for Researchers and Cultural Creators** by BBVA Foundation (Spain)
- 2014 **Accreditation** by ANECA for **Profesor Titular** level in Spanish university system
- 2011 **Certification** in the Spanish **Program I3** of **Recognition of Prominent Research Career**
- 2009 **IDEA Prize in Fundamental Science** by Foundation “City of Arts and Sciences”, Spain.
Topic: *The LHC accelerator and the Cosmos connected via the Dark Matter*
- 1997 – 2001 Postgraduate Scholarship, awarded by Greek State Scholarships Foundation (IKY)
- 1992 Award by IKY for academic excellence during the first year of undergraduate studies

Track Record

I started my career at the **Physics Department of the National & Kapodistrian University of Athens** from which I obtained all my academic degrees. I have benefitted from scholarships granted by the **Greek State Scholarships Foundation** and by **CERN** under the **Doctoral Student** Programme before being selected for prestigious and internationally competitive positions such as the **CERN Fellowship** and the 5-year tenure-track “**Ramón y Cajal**” post in Spain. I am currently employed at the Instituto de Física Corpuscular (IFIC), a joint centre of the Spanish National Research Council (CSIC) and the University of Valencia, as **Senior Researcher** “Investigadora Científica”, a permanent faculty position awarded as promotion in a nation-wide competition. IFIC was recently awarded for a second time the accreditation of **excellence “Severo Ochoa”**.

My main research activities encompass all aspects of **collider experiments**, from detector development to data analysis, as an active member of the ATLAS experiment since 1996 and the MoEDAL experiment since 2012, both operating at the **CERN Large Hadron Collider (LHC)**.

The contributions to **Higgs physics**, all part of my PhD thesis, mainly concern observability studies of supersymmetric Higgs bosons and potential parameter measurements in case of discovery. Regarding the Standard Model Higgs boson, prospects for discovering it in association with a *W* boson via its decay to two *b*-jets, paved the way for the corresponding data analysis.

In the **detector development** front, I coordinated the Transition Radiation Tracker (TRT) development and quality assurance activities at CERN, also contributing to beam tests and Geant4 validation. In Valencia, I joined the ATLAS SemiConductor Tracker (SCT) group, leading key aspects of the SCT module production and performance.

Before ATLAS data taking, I conducted feasibility studies on **leptoquark** detection at the LHC in a work repeatedly cited by the Review of Particle Physics, which geared related searches when the data came along. The possibility of leptoquarks providing the answer to the **deviations from Standard Model** predictions observed by the LHCb experiment is quite intriguing.

My most prominent current activity in **ATLAS** are searches for Supersymmetry, a theoretical framework providing a potentially revolutionary answer to the nature of Dark Matter, the hierarchy problem and the unification of forces. In particular, I have pioneered **R-parity violating (RPV) supersymmetry** searches in ATLAS with emphasis in a class of such theories (bilinear RPV) that may provide a solution to the **neutrino-masses** problem of the Standard Model. Under my leadership, the IFIC-ATLAS group set the **first limits** on such theories using ATLAS data. We initiated analyses, such as the **Z-plus-jets**, which contributed to other lepton-based analyses, and we focused on light-higgsino searches, particularly favoured by naturalness arguments. Searches for **long-lived particles**, whether supersymmetric or not, is a returning theme of my research interests.

In addition, I have been one of the founding members of the **MoEDAL** experiment, the first LHC experiment dedicated on searches for New Physics, looking for long-lived particles, an ever-growing effort in the LHC physics community. I established and I am leading the **IFIC-MoEDAL team** with strong contributions to the analyses for **magnetic monopoles**, leading the **(first ever)** with **photon fusion** production and innovative studies for supersymmetric partners matching the MoEDAL experimental profile. My roles in the experiment's management as **Chair of the Collaboration Board** and **Physics Analysis Coordinator** stand out. MoEDAL has set the world-best limits on high-magnetic-charge monopoles, having the best sensitivity among related experiments. Other pioneering results include constraining **dyons** in colliders and investigating the **Schwinger thermal production** of non-point-like monopoles, the latter analysis published in the journal **Nature** and presented by me in a **CERN EP Seminar**. Searches for *electrically* charged particles connect and complement the corresponding activities in ATLAS.

Recently I joined the efforts on **future Higgs factories** as principal investigator of a research grant at IFIC, and in particular the **International Linear Collider (ILC)** Development Team focusing on feasibility studies for Physics beyond the Standard Model. Apart from Supersymmetry and Dark Matter, this involvement may give the opportunity to return to my previous engagements in Higgs physics and leptoquarks, this time under the light of LHC results and the observed anomalies in B-physics and the muon magnetic moment. I am also representing IFIC at the **Future Circular Collider (FCC)** Collaboration Board.

My research interests are not limited to collider physics, but they extend to aspects of **astroparticle physics**. Together with renowned physicists, I have performed the first analysis on **gamma-ray burst data** testing the constancy of the velocity of light and thus setting the **first bounds** on the scale of possible quantum-gravitational effects related to modified dispersion relations for photons, as a result of the propagation in the "medium" of **Quantum Gravity**. Other related involvements include data analyses from supernovae and other cosmological observations testing dark energy models and studies of dilaton effects on dark matter abundance. In 2009 I was awarded the **IDEA Prize** of the Foundation "City of Arts and Sciences" with a proposal for connecting LHC physics with astroparticle physics and cosmology. These activities continue as a member of related EU-funded COST Actions.

Throughout the aforementioned activities, I have played a crucial role in the **synergy experiment-theory** in common projects with phenomenologists from IFIC, the Institute of Theoretical Physics (Madrid), the University of Granada, the University of Warsaw and King's College London. Such collaboration in phenomenological aspects covers several fields in LHC physics, such as SUSY, Higgs and magnetic monopoles, and in astroparticle physics and cosmology, like dark matter, dark energy and quantum gravity. Such links are followed in both directions: from experimental results to physics interpretation and from theoretical proposals to experimental searches and have yielded several **peer-reviewed articles with few (≤ 10) authors**.

Concerning **teaching**, I have delivered Doctorate courses in the Universities of Valencia, of Granada and of Lisbon. I have been the principal supervisor of three PhD theses (two completed, one in progress), two Master dissertations and I have mentored several undergraduate students in their diploma dissertations, their CERN Summer Student projects, ERASMUS and other traineeships. Thanks to the educational (principally), research and administration activities, I was awarded the **Accreditation** that allows to apply for university professor positions in Spain.

Last but not least, I have served in various **managerial/administrative posts** in attracting research **funding (>2M€ as principal investigator)**, in scientific/selection committees, in conference organisation, proposal evaluation, manuscript reviewing, editorial activities, to cite a few. The **Scientific Advisory Board** membership of the Stefan Meyer Institute for Subatomic Physics (Austrian Academy of Sciences) and the **Project Expert Panel Chair** of the Belgian Research Foundation Flanders stand out. As highlights, I mention the private funding from the BBVA Foundation via the prestigious **Leonardo Grant** and the continuous support for MoEDAL by the autonomous government of the Valencian Community.

Leadership Roles & Responsibilities in Research

- ◆ Member of *MoEDAL Media & Communications Committee*, since 2023
- ◆ Representative of IFIC-Valencia at *Collaboration Board of the Future Circular Collider (FCC)*, since 2022
- ◆ Member of *MoEDAL Finance Resources Committee*, since 2022
- ◆ *MoEDAL Physics Analysis Coordinator*, since 2020
- ◆ Member of *MoEDAL Speakers Committee*, 2015–2022
- ◆ Chairperson of *MoEDAL Collaboration Board*, since 2014
- Software Validation Manager of *ATLAS SUSY Working Group*, 2014–2015
- ◆ ATLAS Contact for Short-Term Associateship (STA): G Bertone, R Trotta & R Ruiz de Austri, 2013–2016
- ◆ Founder & Team Leader of *IFIC-MoEDAL group* & member of *MoEDAL Collaboration Board*, since 2012
- ◆ *ATLAS Paper Submission Officer*, 2011–2012
- ◆ *ATLAS Physics & Committees Office Member*, 2011–2012
- ◆ Organiser of activities on *ATLAS Prompt R-parity violating supersymmetry*, 2009–2012
- ◆ Representative of *ATLAS SUSY Working Group* to *ATLAS Statistics Forum*, 2009–2011
- ◆ Responsible for electrical performance of ATLAS SCT modules at IFIC, 2004–2005
- ◆ Co-coordinator of Geant4 validation studies in ATLAS, 2001–2002
- ◆ Responsible for design finalisation of ATLAS TRT end-cap, 1998–2003

Summary of Scientific Contributions

- 24 peer-reviewed articles with ≤ 10 authors; 11 as corresponding/sole author (+3 submitted or in prep.)
- Major contribution to 19 ATLAS data analyses (+3 in preparation)
- Author of 9 MoEDAL results papers with ~ 70 authors; 1 as corresponding author; 1 published in *Nature* (+1 in preparation)
- 10 peer-reviewed review articles (1 as sole author, another with two authors) (+3 submitted or in prep., 2 as sole author)
- 60 conference proceedings (47 as sole author)
- Major author of 11 ATLAS CONF Notes, 26 ATLAS Notes and one FCC note
- (Co-)author of 19 reports and 3 book chapters (1 as sole author)
- Co-author of 1375 published ATLAS papers & 291 ATLAS CONF Notes & 455 ATLAS PUB Notes
- 66 presentations in international conferences & workshops; 52 invited and/or plenary
- 34 talks in national conferences & workshops; 30 talks in regional & collaboration meetings
- 38 presentations as co-author; >100 participations in conferences without presentation
- 16 colloquia/seminars; 5 courses for doctoral students; lectures in 2 international schools

INSPIRE CITATION SUMMARY	ALL PAPERS	REFEREED ONLY
Papers	1,572	1,446
Citations	224,285	219,264
Renowned papers (500+)	61	58
Famous papers (250-499)	104	104
Very well-known papers (100-249)	435	435
Well-known papers (50-99)	390	387
h-index	210	209

Author Identifiers

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WoS ResearcherID	D-1967-2009	arXiv	mitsou_v_1
Scopus Author ID	57190387217	Google scholar	ieN7qXsAAAAJ

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TRAINING ACTIVITIES

Teaching

- ✧ “Towards New Physics at the LHC”, **invited course** for doctoral students (2 credits), Instituto Superior Tecnico, Centre for Theoretical Particle Physics, May 2012
- ✧ “Supersymmetry at Colliders”, **invited course** for doctoral students (2 credits), Universidad de Granada, Department of Theoretical Physics and the Universe, May 2011
- ✧ “Experimental Aspects of Supersymmetry”, course for doctoral students (2 credits), Universidad de Valencia, Department of Theoretical Physics, May 2011
- ✧ “Supersymmetry: experimental signatures”, course for doctoral students (1.5 credits), Universidad de Valencia, Department of Theoretical Physics, April 2010
- ✧ Laboratory exercises supervision, National & Kapodistrian University of Athens, Department of Physics, 1997–1998
- ✧ Tutorials to university students on general physics, electromagnetism and thermodynamics, Athens, 1996–1997
- ✧ Invited Lectures in Schools (*see p.20*)

Supervision of Students & Young Researchers

Postdoctoral level

- ✧ Mentoring of postdoctoral researcher Judith Höfer at IFIC, 2024-2026
- ✧ Mentoring of postdoctoral researcher Michael Staelens at IFIC, 2023-2024
- ✧ Mentoring of postdoctoral researcher Arka Santra at IFIC, 2017–2020
- ✧ Mentoring of postdoctoral researcher Judita Mamuzic at IFIC, 2015–2021
- ✧ Local (IFIC) supervisor of ATLAS authorship qualification task of Arka Santra, 2017–2018
- ✧ Mentoring of postdoctoral researcher Emma Torró at IFIC, 2013–2016
- ✧ Mentoring of postdoctoral researcher Matthew King at IFIC, 2013–2015
- ✧ Unofficial co-mentoring of several postdoctoral researchers in ATLAS and MoEDAL analyses

Graduate level

- ✧ **PhD** thesis, Michaela Arampatzi. “Study of the New Small Wheel upgrade of the ATLAS experiment with proton-proton collisions,” National Technical University of Athens, *in progress*
- ✧ **PhD** thesis, Emanuela Musumeci. “On the Trail of the Unseen: Probing Exotic Physics at Colliders,” Universitat de València, 2025. **Distinctions: “Cum Laude” and “Doctor Internacional”**
- ✧ **PhD** thesis, Elena Romero Adam. “Search for supersymmetry at LHC with ATLAS,” Universitat de València, 2017. **Distinctions: “Cum Laude” and “Doctor Internacional”**
- ✧ **Master** thesis, Oleksandra Lohunova, carried out as practice work (*“Prácticas Extracurriculares de Postgrado en Empresa”*). “Production of magnetic monopoles via photon fusion in proton-proton collisions,” Universitat de València, 2016
- ✧ **PhD** thesis, Emma Torró Pastor. “Study of supersymmetric signals with R-parity violation with ATLAS/LHC,” Universitat de València, 2013. **Distinctions: “Cum Laude” and “Doctor Internacional.”** Now employed by IFIC as tenured researcher.
- ✧ **Master** thesis of Elena Romero Adam. “Alignment of the ATLAS Inner Detector Tracking System,” Universitat de València, 2011
- ✧ Unofficial co-mentoring of several PhD students in ATLAS and MoEDAL analyses

Undergraduate level

- ✧ **Diploma thesis** (unofficial), Dionysios Skouras, University of Patras, Greece. “Investigating supersymmetric models with R-parity violation,” 2023

- ✧ **Diploma thesis** (6 ECTS credits), Jesús Blanco López, Universitat de València. “Introduction to the Higgs mechanism and searches for doubly-charged Higgs bosons,” 2020
- ✧ **Diploma thesis** (6 ECTS credits), Jorge Roser Martínez, Universitat de València. “Magnetic monopoles: quantisation of the electric charge,” 2016
- ✧ **Diploma thesis** (6 ECTS credits), Luis Monsonis Romero, Universitat de València. “Search for Supersymmetry with the ATLAS detector,” 2016
- ✧ **Diploma thesis** (6 ECTS credits), Alejandro Segarra Tamarit, Universitat de València. “The weak charge of proton,” 2014
- ✧ **Diploma thesis** (unofficial), Ilias Panagoulas, National Technical University of Athens. “Search for the Leptoquark $LQ \rightarrow \nu q$ with ATLAS/LHC,” 2004
- ✧ **Diploma thesis** (unofficial), Christos Papathanassiou, National & Kapodistrian University of Athens. “Prospects for detection of the Higgs boson with ATLAS at the LHC/CERN: Study of $H \rightarrow ZZ^* \rightarrow 4$ leptons channel,” 1998

Internships

- ✧ **ERASMUS+ traineeship** of Dionysios Skouras, University of Patras. “Exploring New Physics at High Energy Particle Colliders,” 2022
- ✧ **Research Internship at Master** (“*Estancia de Investigación*” – 6 ECTS credits), Daniel Queiroz Correa, Universitat de València. “Experimental analysis of Supersymmetry at the LHC,” 2021
- ✧ **ERASMUS+ internship**, Christina Karagianni, Aristotle University of Thessaloniki. “Searches for New Physics at the LHC,” 2018
- ✧ **Practice work** (“*Prácticas Extracurriculares en Empresa*”), Inmaculada Moya Torregrosa, Universitat de València. “Dark energy and observational implications in local gravitation,” 2016
- ✧ **Practice work** (6 ECTS credits), Jorge Roser Martínez, Universitat de València. “Simulation and analysis studies for magnetic monopoles,” 2016
- ✧ **Practice work** (6 ECTS credits), Luis Monsonis Romero, Universitat de València. “Installation of simulation and reconstruction programs for proton-proton collisions,” 2016
- ✧ **CERN Summer Student** Gonzalo Enrique Orellana, “Study on lepton-based SUSY searches with ATLAS at LHC Run I” [CERN-STUDENTS-Note-2015-133], 2015
- ✧ **Practice work** (6 ECTS credits), Alejandro Segarra Tamarit, Universitat de València. “Production and detection of long-lived supersymmetric particles at LHC,” 2014
- ✧ **Practice work** (6 ECTS credits), José Ángel Picazo Bueno, Universitat de València. “Production of τ -leptons at LHC in supersymmetric models without R-parity,” 2013
- ✧ Supervisor of graduate student Mohammed Ezzi, Université Mohammed V (Rabat, Morocco), “Searches for R-parity violating supersymmetry with ATLAS,” integrated action *Grid and E-Science*, 2012
- ✧ **CERN Summer Student** Mireia Crispín Ortuzar, “ATLAS data analysis searching for R-parity violating Supersymmetry,” 2011
- ✧ Programme **CSIC JAE-Intro**, undergraduate student Mireia Crispín Ortuzar, Universitat de València, “Searches for Supersymmetry with R-parity violation with ATLAS” [ref: JAE-INT-0753], 2010
- ✧ **CERN Summer Student** Concepción Oliver Amorós and her **diploma thesis**, Universidad Autónoma de Madrid, “Gas flow simulation for the 8-plane end-cap TRT wheel,” [ATL-IT-EN-0033], 2001

SCIENTIFIC COUNCELLING & MANAGEMENT

Administration & Committees

International scope

- ♦ [Scientific Advisory Board](#) Member and Representative to HEPHY of [Stefan Meyer Institute for Subatomic Physics](#) (SMI), [Austrian Academy of Sciences](#) (ÖAW), 2022–2027
- ♦ Member of the **Domain Board for Science & Technology**, [Research Foundation - Flanders](#) (FWO), Belgium, 2020–2024
- ♦ Chair (2020–2024) and Member (2019) of the [W&T2 \(Physics\) Project expert panel](#), FWO, Belgium
- ♦ Scientific Expert for Fundamental Research, Ministry for Universities and Research (MUR), Italy, since 2020
- ♦ International Advisory Committee Member: *DISCRETE2018*, Vienna; *DISCRETE2016*, Warsaw; *DISCRETE2014*, London; *DISCRETE2012*, Lisbon; *DISCRETE2010*, Rome
- ♦ Steering Committee Member, *Biannual Series of Symposia on Prospects in the Physics of Discrete Symmetries (DISCRETE)*, since 2008
- ♦ Coordinator of *Young Researchers Panel (YRP)*, EU RTN network “*The 3rd Generation as a Probe for New Physics*,” 2005–2006

National scope

- ♦ Jury member, Associate Professor position, University of Santiago de Compostela, Spain, 2025
- ♦ Jury chair, Associate Professor position, University of Salamanca, Spain, 2025
- ♦ Jury member, two Tenured Research Scientist positions, CIEMAT, Spain, 2025
- ♦ Jury member, two Tenured Research Scientist positions, CSIC, Spain, 2025
- ♦ Jury member, Senior Researcher position, CSIC, Spain, 2024
- ♦ Jury member, Assistant and Associate Professor positions in Greek universities, 2020–2023
- ♦ Evaluation Committee Member, German Academic Interchange Service (DAAD), Spain, 2017–2022
- ♦ Jury member for *VI Edition of the IDEA Awards*, Foundation City of Arts and Sciences, Valencia, Spain, May 2010

Regional scope

- ♦ Member of IFIC Scientific Senate (*Claustro Científico*), since 2016
- ♦ Co-organiser of IFIC Colloquia, 2019–2021
- ♦ Selection committee member for various positions of PhD students, post-doctoral and technical personnel hired by CSIC or University of Valencia, since 2015
- ♦ Organiser of eight IFIC Seminars, 2012–2023
- ♦ Manager of experimental postdoctoral positions selection of “Severo Ochoa” Program at IFIC, 2016
- ♦ Selection committee member for predoctoral scholarships “La Caixa – Severo Ochoa” at IFIC, 2016

Evaluation Activities

Fellowships and research grant proposals and reports for the following organisations:

- ♦ *Latvian Council of Science (LCS)*, 2025
- ♦ *University of Basque Country (UPV/EHU)*, Spain, 2025
- ♦ *Swiss National Science Foundation (SNSF)*, 2020–2025
- ♦ *Fund for Scientific Research – FNRS*, Belgium, 2012–2025
- ♦ *Hellenic Foundation for Research & Innovation (HFRI, ΕΛΙΔΕΚ)*, 2024–2025
- ♦ HORIZON Research and Innovation Actions, *European Commission*, 2024
- ♦ “*la Caixa*” Foundation, Spain, 2024

- ♦ *Qatar Research, Development and Innovation (QRDI)*, 2023–2024
- ♦ *Research Foundation Flanders (FWO)*, Belgium, 2019–2024
- ♦ *The Royal Society*, UK, 2023
- ♦ *Cyprus Research and Innovation Foundation (RIF)*, 2021
- ♦ *Ministry for University and Research (MUR)*, Italy, 2021
- ♦ *Qatar National Research Fund (QNRF)*, 2016–2021
- ♦ *German Academic Exchange Service (DAAD)*, Spain, 2018
- ♦ Horizon 2020 Marie Skłodowska-Curie Individual Fellowships, *European Commission*, 2016
- ♦ *Research Based University Chairs of Excellence – Universities of Paris (RBUCE-UP)*, *European Union*, 2012
- ♦ *National Evaluation and Foresight Agency (ANEP)*, Spain, 2012

Jury secretary/member for PhD and Master's theses:

- ♦ Four PhD theses, University of Valencia: J P Márquez Hernández, 2025; M Perelló Roselló, 2020; M L López Ibáñez, 2017; P Villanueva Pérez, 2013
- ♦ PhD thesis on magnetic monopole searches with IceCube, A Burgman, Uppsala University, Sweden, 2021
- ♦ Two Master's theses, University of Valencia: J J Martínez de Lejarza Samber & L Larizgoitia Arcocha, 2021

Other Peer Reviewing

- ♦ Member of ten ATLAS Editorial Boards,¹ acting as internal reviewer (declined other invitations in EBs)
- ♦ Reviewer of contributions to proceedings of Symposia *DISCRETE2020-2021* and *DISCRETE 2018*
- ♦ Reviewer of ATLAS presentations in national conferences, 2011–2012
- ♦ Institutional reading of ATLAS papers, since 2017
- ♦ Reviewer (twice) of “Magnetic Monopoles” section, *Review of Particle Physics*, Particle Data Group
- ♦ Referee of manuscripts for *European Physical Journal C*; *European Physical Journal – Special Topics*; *Int'l Journal of Theoretical Physics*; *Springer Proceedings in Physics* (Springer); *Nuclear Physics B*; *Astroparticle Physics*; *Annals of Physics*; *Physics of the Dark Universe*; *Karbala Int'l Journal of Modern Science* (Elsevier); *Int'l Journal of Modern Physics A* (World Scientific); *Journal of Physics G: Nuclear and Particle Physics* (Institute of Physics); *Proceedings of the Royal Society A*; *Philosophical Transactions A* (Royal Society, UK); *Frontiers in Astronomy and Space Sciences* (EPFL); *Universe*; *Symmetry*; *Particles*; *Sensors*; *Proceedings*; *Condensed Matter*; *Applied Sciences*; *Instruments*; *Materials* (MDPI); *Int'l Journal of Physical Sciences*; *Open Physics Journal*; *Int'l Journal of Atomic and Nuclear Physics*

ORCID reviewer profile: <https://orcid.org/0000-0002-1533-8886>

Editorial Activities

- ♦ Lead Guest Editor: Special Issue [The MoEDAL-MAPP Experiment – The LHC's First Dedicated Search Experiment for BSM Physics](#) in journal *European Physical Journal Special Topics*, 2025–
- ♦ Co-editor: Research Topic [Promoting Green Computing in High-Energy Physics and Astrophysics](#) in journal *Frontiers in Physics*, 2024–2025
- ♦ **Guest Editor** in journal *Frontiers in Physics* (EPFL), since 2024
- ♦ **Guest Editor** in journal *The European Physical Journal Special Topics* (Springer), since 2022
- ♦ **Editorial Board Member** in journal *Particles* (MDPI), since 2020
- ♦ **Associate Editor** in section *High-Energy and Astroparticle Physics* of the journals *Frontiers in Astronomy and Space Sciences* and *Frontiers in Physics* (EPFL), 2014–2019

¹ The Editorial Board is appointed in the early stages of an ATLAS physics analysis to monitor it, interact with the analysis team and inject a fresh viewpoint and constructive criticism. It is also responsible for the completeness of the paper, for its satisfactory stylistic quality and for choosing the submission journal.

- ♦ Co-editor: Proceedings *DISCRETE 2014: Fourth Symposium on Prospects in the Physics of Discrete Symmetries*, 2–6 December 2014, London, UK / Ed. A Di Domenico, N E Mavromatos, V A Mitsou and D Skliros, [Journal of Physics: Conference Series, vol. 631](#), Institute of Physics (UK), 2015
- ♦ Co-editor: Proceedings *16th International Symposium on Particles, Strings and Cosmology (PASCOS 2010)*, 19–23 Jul 2010, Valencia, Spain / Ed. S Cabrera, M Hirsch, V A Mitsou, C Muñoz, S Pastor, M A Tórtola, J W F Valle and O Vives, [Journal of Physics: Conference Series, vol. 259](#), Institute of Physics (UK), 2010
- ♦ Principal Editor: Proceedings *DISCRETE '08: Symposium on Prospects in the Physics of Discrete Symmetries*, 11–16 Dec 2008, Valencia, Spain / Ed. J Bernabéu, F Botella, N E Mavromatos and V A Mitsou, [Journal of Physics: Conference Series, vol. 171](#), Institute of Physics (UK), 2009

Conference Organisation

- ♦ **LCWS25** – *International Workshop on Future Linear Colliders*, 20–24 Oct 2025, Valencia, Spain, local organising committee member & “Beyond-the-Standard-Model physics” convener
 - ♦ **LLP2025** – *15th Workshop of the Long-Lived Particle Community*, 2–6 Jun 2025, Valencia, Spain, local organising committee member
 - ♦ **Sustainable HEP 2025 – 4th Edition**, 13–16 May 2025, fully virtual, organising committee, programme committee member and panel moderator
 - ♦ **PASCOS2024** – *20th Rencontres du Vietnam*, 6–13 Jul 2024, Quy Nhon, Vietnam, scientific program committee member
 - ♦ **SUSY2024** – *Theory meets Experiment*, 10–14 Jun 2024, Madrid, Spain, convener of track *Non-SUSY BSM / Alternatives to SUSY*
 - ♦ **ATHEXIS** – *Athens Symposium on Exploring the Universe*, 10–14 Jun 2024, Athens, Greece, organising committee member
 - ♦ *MoEDAL Collaboration Meetings* at CERN, 2015–2024, co-organiser
 - ♦ **LHCP2021** – *9th Annual Large Hadron Collider Physics*, 7–12 Jul 2021, France, convener of track *BSM2: Feebly Interacting Particles and Dark Matter*
 - ♦ *11th MoEDAL Collaboration Meeting*, 5–7 Jun 2019, Prague, Czech Republic, program co-organiser
 - ♦ **Topological Avatars of New Physics**, 4–5 Mar 2019, London, UK, organising committee member
 - ♦ **ICNFP 2018**, 4–12 Jul 2018, Kolymbari, Crete, Greece, co-organiser of *Mini-workshop on Highly Ionising Avatars of New Physics*
 - ♦ **ICNFP 2017**, 17–29 Aug 2017, Kolymbari, Crete, Greece, co-organiser of *Mini-workshop on Highly Ionising Avatars of New Physics*
 - ♦ **5th MoEDAL Collaboration Meeting**, 28–29 Jun 2016, Valencia, Spain, chair of organising committee
 - ♦ **PLANCK 2016**: *From the Planck Scale to the Electroweak Scale*, 23–27 May 2016, Valencia, Spain, local organising committee member
 - ♦ **DISCRETE2014**: *Fourth Symposium on Prospects in the Physics of Discrete Symmetries*, 1–6 Dec 2014, London, UK, convener of sessions on experimental results
 - ♦ *PROMETEO III: LHC: Physics at the Limits*, 2–5 & 15–19 Nov 2010, Valencia, Spain, co-organiser
 - ♦ **PASCOS 2010** – *16th International Symposium on Particles, Strings and Cosmology*, 19–23 Jul 2010, Valencia, Spain, local organising committee member
 - ♦ *PROMETEO II: Baryonic-Leptonic Asymmetry*, 9–12 Dec 2009, Valencia, Spain, co-organiser
 - ♦ *PROMETEO I: LHC Physics and Cosmology*, 2–6 Mar 2009, Valencia, Spain, co-organiser
 - ♦ **DISCRETE '08**: *Symposium on Prospects in the Physics of Discrete Symmetries*, 11–16 Dec 2008, Valencia, Spain, co-chair of organising committee
- With this event, the Biannual Series of International Symposia “**DISCRETE**” was established

- ♦ Round table and panel moderator/member:
 - “Charting the Path Ahead: Insights from Global Physics Laboratories” (two panels), *Sustainable HEP 2025 – 4th Edition*, 13–16 May 2025, fully virtual
 - “LLP,” 6th *Red LHC Workshop*, 9–11 May 2022, Madrid, Spain
 - “Panel discussion/overview,” *Topological Avatars of New Physics*, 4–5 Mar 2019, London, UK
 - “Future of Fundamental Physics,” *ICNFP 2018*, 4–12 Jul 2018, Kolymbari, Crete, Greece
 - “Supersymmetry”, 2nd *Spanish LHC Network Meeting*, 9–11 May 2018, Madrid, Spain
 - “Experimental wish list”, 1st *Spanish LHC Network Meeting*, 8–9 May 2017, Madrid, Spain
- ♦ Session chair: *Corfu2025; WQC2025; DICE2024; SUSY2024; HEP2023; Corfu2022; SUSY2022; Corfu2019; PASCOS2019; Topological Avatars of New Physics 2019; Quest 2018; Corfu2018; HEP2018; IX CPAN Days 2017; Corfu2017; DISCRETE2016; Corfu2016; ICNFP2016; ICNFP2015; HEP2015; DISCRETE2014; SUSY2014; IVICFA Easter Workshop 2013; ICFP2012; DISCRETE2010; PROMETEOIII 2010; PASCOS2010; HEP2007; 5th RTN Workshop 2005*
- ♦ Chair of rehearsal sessions for ATLAS Speakers Committee, since 2015

RESEARCH FUNDING

Projects and Agreements as Principal Investigator

- Extraordinary grant for preparation of national projects (AEPP2025) “*LHC and Higgs factory - physics & technological aspects*,” CSIC, 2025, 30,000€, PIs: V A Mitsou & M Vos [ref: 2025AEP129]
- **National project FPA** “*Advancing HEP: collider experiments and technological R&D*,” Ministry of Science and Innovation (Spain), 2025–2028, 330,000€, PIs: M Vos & V A Mitsou [ref: PID2024-158190NB-C21]
- **Project of excellence PROMETEO** “*The Quest for New Physics (QNewPhys). High precision, direct searches and technology development*,” Generalitat Valenciana (Spain), 2022 – 2025, 600,000€, PIs: J Fuster Verdú & V A Mitsou [ref: CIPROM/2021/073]
- **National project FPA** “*LHC and Higgs factory - physics & technological aspects*,” Ministry of Science and Innovation (Spain), 2022–2025, 450,000€, PIs: V A Mitsou & M Vos [ref: PID2021-122134NB-C21]
- **Special grant** “*Realisation of MoEDAL experiment in the Large Hadron Collider (LHC) at the European Laboratory for Particle Physics (CERN)*,” Generalitat Valenciana, 2022, 30,000€, PI: V A Mitsou
- Extraordinary grant for preparation of national projects (AEPP2021) “*Looking for traces of new physics at high energies in LHC and future e^+e^- colliders: High precision and direct searches (NewPhys@HEPColliders)*,” CSIC, 2022, 50,000€, PIs: J Fuster Verdú & V A Mitsou [ref: 2021AEP063]
- **Agreement GV-UV** for MoEDAL-IFIC group “*Realisation of MoEDAL experiment in the Large Hadron Collider (LHC) at the European Laboratory for Particle Physics (CERN)*,” Generalitat Valenciana, 2021, 30,000€, PI: V A Mitsou
- **Agreement GV-UV** for MoEDAL-IFIC group “*Realisation of MoEDAL experiment in the Large Hadron Collider (LHC) at the European Laboratory for Particle Physics (CERN)*,” Generalitat Valenciana, 2020, 30,000€, PI: V A Mitsou
- **Agreement GV-UV** for MoEDAL-IFIC group “*Realisation of MoEDAL experiment in the Large Hadron Collider (LHC) at the European Laboratory for Particle Physics (CERN)*,” Generalitat Valenciana, 2019, 30,000€, PI: V A Mitsou
- **National project FPA** “*Looking for traces of new physics at high energies in LHC and future e^+e^- colliders: High precision and direct searches (NewPhys@HEPColliders)*,” Ministry of Science and Innovation (Spain), 2019–2021, 180,000€, PIs: J Fuster Verdú & V A Mitsou [ref: PGC2018-094856-B-I00]
- **Agreement GV-UV** for MoEDAL-IFIC group “*Realisation of MoEDAL experiment in the Large Hadron Collider (LHC) at the European Laboratory for Particle Physics (CERN)*,” Generalitat Valenciana, 2018, 30,000€, PI: V A Mitsou
- **Beca Leonardo** “*Searches for New Physics in the ATLAS and MoEDAL experiments at LHC at CERN*,” BBVA Foundation, Spain, 2017–2019, 40,000€, PI: V A Mitsou
- **Agreement GV-UV** for MoEDAL-IFIC group “*Realisation of MoEDAL experiment in the Large Hadron Collider (LHC) at the European Laboratory for Particle Physics (CERN)*,” Generalitat Valenciana, 2017, 30,000€, PI: V A Mitsou
- **Tenured Scientist Incorporation Program** “*Search for new physics and detector development in ATLAS and MoEDAL experiments at the LHC*,” CSIC, 2016–2017, 9,000€ [ref: PIE-201650I002], PI: V A Mitsou
- **Project PRECOMPETITIVO** “*Alignment of the ATLAS Inner Detector using tracks and searches for Supersymmetry at LHC*,” Generalitat Valenciana, 2008, 27,800€ [ref: GVPRE/2008/242], PI: V A Mitsou
- **Ramón y Cajal Program** “*Performance and Optimisation of the ATLAS Inner Detector and Search for Supersymmetry at the LHC*,” Ministry of Science and Innovation, Spain, 2008–2012, 189,000€ [ref: RYC-2007-00631], PI: V A Mitsou

Grants and Contracts as Principal Investigator

- National mobility program “*Salvador de Madariaga*” for senior professors & researchers, stay at National Technical University of Athens (NTUA), Greece, “*Data Analysis from the ATLAS Muon Spectrometer and Explorations with the MoEDAL-MAPP Experiment*,” Sep 2023 – Feb 2024, Ministry of Universities (Spain), 15,000€ [ref: PRX22/00633]

- Mobility grant for a stay at NTUA (Greece), “*Data Analysis from the ATLAS Muon Spectrometer and Explorations with the MoEDAL-MAPP Experiment*,” Jul–Dec 2023, Universitat de València, 9,300€ [ref: UV-INV_EPDI-2660390] (*grant turned down*)
- Grant **iMOVE** supporting stay of PhD student E Musumeci at CERN, “*Searches for New Physics at the LHC and Future Colliders*,” CSIC, 2023, 4,000€ [ref: iMOVE23097]
- Postdoctoral contract **APOSTD** M Staelens “*Exploring dark matter and other sectors at LHC and Higgs factories*”, promoter, Generalitat Valenciana, 2022–2024, 92,500€ [ref: CIAPOS/2021/88]
- Grant **BEST** for a stay at the National & Kapodistrian University of Athens, “*Exploring Long-Lived Particles at the LHC*,” Generalitat Valenciana, Jun–Dec 2022, 9,600€ [ref: CIBEST/2021/29]
- Postdoctoral contract **APOSTD** A Santra “*Search for New Physics at the LHC*,” promoter, Generalitat Valenciana, 2020–2022, 93,500€ [ref: APOSTD/2020/077] (*grant turned down*)
- Postdoctoral contract **APOSTD** J Mamuzic “*Small Excesses*,” promoter, Generalitat Valenciana, 2019–2021, 93,500€ [ref: APOSTD/2019/165]
- **CERN Corresponding Associate**, Apr–Jul 2015 [ref: CASS2014], 16,500CHF
- Mobility grant for a stay at CERN “*Search for R-Parity-Violating Supersymmetry at the LHC*,” Universitat de València, Jun–Sep 2011, 6,100€ [ref: UV-INV-EPDI11-42955]
- **CERN Corresponding Associate**, Jan–Feb 2011 [ref: CASS2010], 8,200CHF
- Grant for the organisation of *16th International Symposium on Particles, Strings and Cosmology (PASCOS 2010)*, 19–23 Jul 2010, Valencia, Spain, CSIC, 5,000€
- Grant supporting the employment of researchers **Ramón y Cajal**, Generalitat Valenciana, 2008–2012, 9,200€ [ref: ACOND2012]
- Grant for the organisation of *DISCRETE '08: Symposium on Prospects in the Physics of Discrete Symmetries*, 11–16 Dec 2008, Valencia, Spain, CSIC, 1,500€
- Grant **BEST** for a stay at CERN “*Search for Supersymmetry in the ATLAS experiment at the LHC*,” Generalitat Valenciana, Aug–Dec 2008, 6,800€ [ref: BEST/2008/161]
- **CERN Corresponding Associate**, Oct–Dec 2006 [ref: CASS2006], 12,000CHF

Research Project Participation

- COST Action “*Bridging high and low energies in search of quantum gravity (BridgeQG)*,” EU, 2024–2028, PIs: G Gubitosi & F Giacomini [ref: CA23130]
- COST Action “*COSMIC WISPerS in the Dark Universe: Theory, astrophysics and experiments (CosmicWISPerS)*,” EU, 2022–2026, PIs: A Mirizzi & F Calore [ref: CA21106]
- COST Action “*Addressing observational tensions in cosmology with systematics and fundamental physics (CosmoVerse)*,” EU, 2022–2026, PIs: J Levi Said & E Di Valentino [ref: CA21136]
- International collaboration program i-LINK+ “*The third-generation quarks and new physics: from the LHC to a Higgs factory*,” CSIC, 2021–2022, PI: J Fuster Verdú [ref: LINKB20065]
- COST Action “*Quantum Gravity Phenomenology in the Multi-Messenger Approach – QG-MM*,” EU, 2019–2023, PI: J M Carmona [ref: CA18108]
- Project of excellence PROMETEO “*From LHC Physics to the Keys of the Primordial Universe in the Era of Data*,” Generalitat Valenciana (Spain), 2017–2021, PI: G Barenboim Szuchman [ref: PROMETEO II/2017/033]
- National project “*Contributions to the Inner Detector and the Physics Program of the ATLAS Experiment at the LHC*,” Ministry of Economy and Competitiveness (Spain), 2016–2018, PIs: C García García & C Lacasta Llácer [ref: FPA2015-65652-C4-1-R]
- Project of excellence PROMETEO “*From LHC Physics to the Keys of the Primordial Universe in the Era of Data*,” Generalitat Valenciana (Spain), 2013–2016, PI: J Bernabeu Alberola [ref: PROMETEO II/2013-017]
- National project “*Contributions to the ATLAS experiment at the Large Hadron Collider*,” Ministry of Economy and Competitiveness (Spain), 2013–2015, PI: C García García [ref: FPA2012-39055-C02-01]

- Integrated action “*Grid and E-Science: Data Analysis of the ATLAS Detector and Medical Physics*,” Ministry of Foreign Affairs and Cooperation (Spain), 2012–2013, PIs: S González de la Hoz & R Cherkaoui el Moursli [ref: A1/035250/11]
- Joint research project “*Grid and E-Science: Data Analysis of the ATLAS Detector and Medical Physics*,” Ministry of Foreign Affairs and Cooperation (Spain), 2011–2012, PIs: S González de la Hoz & R Cherkaoui el Moursli [ref: A/030322/10]
- Joint research project “*Grid and E-Science: Data Analysis of the ATLAS Detector and Medical Physics*,” Ministry of Foreign Affairs and Cooperation (Spain), 2010–2011, PIs: S González de la Hoz & R Cherkaoui el Moursli [ref: A/023372/09]
- National project “*Contributions to the ATLAS experiment at hadronic collider LHC*,” Ministry of Science and Innovation (Spain), 2010–2012, PI: C García García [ref: FPA2009-13234-C04-01]
- Project of excellence PROMETEO “*LHC physics, cosmology and their interplay*,” Generalitat Valenciana (Spain), 2008–2012, PI: J Bernabeu Alberola [ref: PROMETEO/2008/004]
- National project “*Participation in the ATLAS Tracker*,” Ministry of Education and Science (Spain), 2007–2009, PI: C García García [ref: FPA2006-13238-C02-01]
- National project “*Development of a TIER3 Facility and Preparation for ATLAS Data Analysis at IFIC*,” Ministry of Education and Science (Spain), 2007–2009, PI: E Ros [ref: FPA2006-03081]
- National project “*Participation in the Construction of the ATLAS Tracker at the LHC*,” Ministry of Science and Technology (Spain), 2003–2006, PI: C García García [ref: FPA2003-03878-C02-01]
- Project EPEAEK B – PYTHAGORAS II “*Search for New Physics at HERA and LHC energies*,” Ministry of National Education and Religious Affairs (Greece) and the EU, 2005–2007, PI: Th Papadopoulou [ref: 68/848]
- Project EPEAEK B – PYTHAGORAS II “*Probing Beyond the Standard Model at the LHC: Theoretical and Phenomenological Implications for Particle Physics and Cosmology*,” Ministry of National Education and Religious Affairs (Greece) and the EU, 2005–2007, PI: A B Lahanas [ref: 89153/68]
- Research Training Network “*The 3rd Generation as a Probe for New Physics: Experimental and Technological Approach*,” EU, 2002–2006, PI: A Savoy-Navarro [ref: HPRN-CT-2002-00292]
- Project “*Calibration of the Muon Detector and Search for New Physics with the ATLAS/LHC Experiment*,” National Technical University of Athens (NTUA) in Greece, 2003–2005, PI: Th Papadopoulou [ref: 65131900]
- Project PEVE-THALES “*Search for Leptoquarks with ATLAS at the LHC*,” National Technical University of Athens (NTUA) in Greece, 2002–2004, PI: Th Papadopoulou [ref: 65/1319]
- Project ARCHIMEDES “*Development of a Computer Network for Data Analysis and Search for New Particles in High Energy Physics Experiments*,” Institute of Communications and Computing Systems (ICCS) of the NTUA (Greece), 2000–2002, PI: Th Papadopoulou [ref: 65/1019]
- Project PENED 95 “*Search for Higgs Bosons and Supersymmetric Particles with the ATLAS Experiment*,” General Secretariat for Research and Technology (GSRT) of the Ministry of Development (Greece), 1996–1998, PI: Ch Kourkouvelis [ref: 70/3/2951]

Co-investigator in Other Grants

- Grant for the organisation of the Discussion Meeting *Topological Avatars of New Physics*, 4–5 Mar 2019, London, UK, Royal Society Hooke Committee, UK [ref: HC\DM\17b180004]
- Grant for the organisation of *PLANCK 2016: From the Planck Scale to the Electroweak Scale*, 23–27 May 2016, Valencia, Spain, Ministry of Economy and Competitiveness of Spain, PI: Martin Hirsch [ref: FPA2015-62983-CIN]

OTHER MERITS

Outreach and Media

- Management of MoEDAL-MAPP LinkedIn page: <https://www.linkedin.com/company/101277794/>
- V A Mitsou, “Αναζητώντας το μαγνητικό μονόπολο (Seeking the magnetic monopole),” outreach lecture, event *WomenInScience2024* organised by *NTUA Young Minds*, National Technical University of Athens, Greece, 14 Mar 2024
- “El experimento MoEDAL presenta resultados sobre los monopolos magnéticos,” *Anuario Inforuvid*, pp. 221–222, article on MoEDAL results (2023)
- “El experimento MoEDAL publica nuevos resultados para encontrar una de las partículas más buscadas,” *IFIC web page* y *Boletín semanal* de la Delegación del CSIC en la Comunidad Valenciana, 4 Feb 2022
- “Físicos valencianos trabajan en el mayor experimento mundial sobre partículas,” *feature in Levante*, 31 Oct 2021
- “Dyons: Particles with electric and magnetic charge,” post at *IFIC blog*, 28 Apr 2020
- “New search for magnetic monopoles at the LHC,” *IFIC web page*, 3 Sep 2019
- Creation & maintenance of IFIC-MoEDAL group web page, <http://ific.uv.es/moedal/>
- B de la Cruz, M^a I Josa, V Mitsou, “Física más allá del Modelo Estándar,” outreach article, *Revista Española de Física*, vol. 32, no. 1, p. 8-13 (2018)
- *Article* by Mar de Miguel – interview with V Mitsou: “Los ‘Leonardos’ del siglo XXI”, *El Mundo*, 15 Aug 2017
- “An IFIC researcher receives a BBVA Foundation grant to search for new physics at the LHC,” *IFIC web page*, 7 Jul 2017
- Online video on searches for New Physics: <http://prometeo033.blogs.uv.es> (2017)
- “The LHC MoEDAL experiment publishes its first paper on its search for magnetic monopoles,” CSIC Delegation in Valencian Community *press release* and web pages of *IFIC Valencia* and *University of Valencia*, following related *CERN Press Release*, 10 Aug 2016
- “Symmetrising Forces and Matter,” banner at IFIC Valencia web page, Apr 2016
- Participation in construction of *ATLAS Lego Model* at IFIC Valencia, Jan 2013
- Interview in the TV program “Bosón de Higgs” in *UPV-TV* of the *Universidad Politécnica de Valencia*, 6 Jul 2012
- Interview on Higgs boson discovery at LHC in “Matí a 4 bandes” of *Radio 4* of the *Radio Nacional Española (RNE)*, 5 Jul 2012
- J Bernabéu y V Mitsou, “La frontera del conocimiento,” article on the Higgs boson discovery at the LHC, *El Mundo*, Edición Madrid, 5 Jul 2012, no. 8231, p. 40.
http://elmundo.orbyt.es/2012/07/05/orbyt_en_elmundo/1341477882.html
- “Queremos conocer de qué material se compone el Cosmos”, interview in the magazine *IDEA* of the Foundation City of Arts and Sciences, Valencia, Spain, no. 17, Sep–Nov 2009, pp. 12–13
- “LHC y el Universo: Cómo ver lo invisible,” poster in display at IFIC since 2009
- Co-organiser of the exposition *El CERN a través de los ojos de Peter Ginter, la visión de un poeta*, 3–20 Oct 2009, City of Arts and Sciences, Valencia, Spain

Professional & Scientific Affiliations

- **ATLAS/LHC** Collaboration, since 1996
- **MoEDAL/LHC** Collaboration, since 2012
- International Linear Collider (**ILC**) Development Team, since 2021
- International Large Detector (**ILD**), since 2022
- Future Circular Collider (**FCC**) Project Collaboration, since 2022
- European Physical Society (EPS), since 2005

- Real Sociedad Española de Física (RSEF), specialised group for Theoretical & Particle Physics, since 2008
- Leonardo Network (Red Leonardo) of BBVA Foundation, since 2017
- Centro Nacional de Física de Partículas, Astropartículas y Nuclear (CPAN), since 2006
- Marie Curie Fellows Association (MCFA), since 2006
- CERN User, since 1996 when not hired or remunerated by the Organisation
- CERN Alumni Network, since 2017
- Hellenic Society for the Study of High Energy Physics (HSSHEP), 1997 – 2024
- Asociación Nacional de Investigadores Ramón y Cajal (ANIRC), 2008–2015
- Hellenic Physical Society, 2004 – 2010

Computing Skills

<i>Programming languages</i>	C++, FORTRAN, Python, HTML, C, Pascal, Basic, Java, Perl
<i>Operating systems</i>	MacOS, Linux, Windows, DOS, VMS
<i>General software</i>	LaTeX, MS-Office, iWorks, FrameMaker, SVN, Git
<i>Scientific toolkits</i>	ROOT, Mathematica, PAW
<i>HEP software</i>	PYTHIA, MadGraph, CheckMATE, Prospino, Resummino, SARAH, SPheno, Athena (ATLAS software framework)
<i>Technical computing</i>	Geant4, Garfield, LabVIEW, StarCD

Languages

<i>English</i>	fluent	<i>French</i>	basic
<i>Spanish</i>	fluent	<i>Greek</i>	mother tongue

CONFERENCES & WORKSHOPS

Presentations in International Conferences & Workshops²

1. V A Mitsou for the MoEDAL Collaboration, “Recent updates from the MoEDAL experiment” **(invited plenary)**,
25th Hellenic School and Workshops on Elementary Particle Physics and Gravity: Workshop on Standard Model and Beyond, 24 Aug – 3 Sep 2025, Corfu, Greece
2. V A Mitsou for the ATLAS Collaboration, “ATLAS results on quantum entanglement” **(invited plenary)**,
WQC Workshop on Quantum Entanglement of High Energy Particles, 18–23 Jul 2025, Shanghai, China
3. V A Mitsou for the MoEDAL Collaboration, “MoEDAL-MAPP and the lifetime frontier,”
PIC2024 – 43rd International Symposium on Physics in Collision, 22–25 Oct 2024, Athens, Greece
4. V A Mitsou, “The hunt for magnetic monopoles” **(invited plenary)**,
DICE2024 – 11th International Workshop on Spacetime - Matter - Quantum Mechanics, 16–20 Sep 2024, Castiglioncello (Tuscany), Italy
5. V A Mitsou, E Musumeci, A Irlles, R Perez-Ramos, I Corredoira, E Sarkisyan-Grinbaum, M A Sanchis Lozano, “Probing hidden sectors at e⁺e⁻ colliders via two-particle angular correlations” **(invited plenary)**,
24th Hellenic School and Workshops on Elementary Particle Physics and Gravity: Workshop on Standard Model and Beyond, 25 Aug – 4 Sep 2024, Corfu, Greece
6. V A Mitsou for the ATLAS Collaboration, “Recent SUSY results on long-lived particles in ATLAS,”
SUSY2024: 31st International Conference on Supersymmetry and Unification of Fundamental Interactions, 10–14 Jun 2024, Madrid, Spain
7. V A Mitsou, “Long-lived particles: The experiments” **(invited plenary)**,
Bethe Forum: Long-Lived Particles, 13–17 Nov 2023, Bonn, Germany
8. V A Mitsou, E Musumeci, A Irlles, R Perez-Ramos, I Corredoira, E Sarkisyan-Grinbaum, M A Sanchis Lozano, “Future e⁺e⁻ colliders as probes of hidden sectors via particle angular correlations,”
Second ECFA Workshop on e⁺e⁻ Higgs/EW/Top Factories, 11–13 Oct 2023, Paestum, Salerno, Italy
9. V A Mitsou, “Looking for charged detector-stable particles at the LHC” **(invited plenary)**,
23rd Hellenic School and Workshops on Elementary Particle Physics and Gravity: Workshop on Standard Model and Beyond, 27 Aug – 7 Sep 2023, Corfu, Greece
10. V A Mitsou, “LLPs in MoEDAL-MAPP” **(plenary)**,
Searching for long-lived particles at the LHC: 13th Workshop of the LHC LLP Community, 19–23 Jun 2023, CERN, Geneva, Switzerland
11. V A Mitsou for the MoEDAL Collaboration, “MoEDAL-MAPP - Detectors specialised for LLP searches,”
LHCP 2023 – Large Hadron Collider Physics Conference, 22–26 May 2023, Belgrade, Serbia
12. V A Mitsou for the MoEDAL Collaboration, “Looking for charged (meta)stable particles in MoEDAL-MAPP” **(invited plenary)**,
Workshop on Multi-front Exotic phenomena in Particle and Astrophysics (MEPA 2022), 15–19 Dec 2022, Hefei, China
13. V A Mitsou for the ATLAS & CMS Collaborations, “Searches for Supersymmetry with the ATLAS and CMS detectors” **(invited plenary)**,
22nd Hellenic School and Workshops on Elementary Particle Physics and Gravity: Workshop on Standard Model and Beyond, 28 Aug – 8 Sep 2022, Corfu, Greece
14. V A Mitsou for the MoEDAL Collaboration, “MoEDAL, MAPP and the lifetime frontier” **(invited)**,
SUSY 2022 – 29th International Conference on Supersymmetry and Unification of Fundamental Interactions, 27 Jun – 2 Jul 2022, Ioannina, Greece

² As “invited” are indicated only direct personal invitations by the event organisers.

15. V A Mitsou, “Electrically charged (meta)stable particles in MoEDAL” **(invited)**, *SUSY 2022 – 29th International Conference on Supersymmetry and Unification of Fundamental Interactions*, 27 Jun – 2 Jul 2022, Ioannina, Greece
16. V A Mitsou *for the MoEDAL Collaboration*, “MoEDAL, MAPP and future endeavours” **(invited plenary)**, *7th Symposium on Prospects in the Physics of Discrete Symmetries – DISCRETE 2020-2021*, 29 Nov – 3 Dec 2021, Bergen, Norway
17. V A Mitsou *for the ATLAS & CMS Collaborations*, “EFT interpretation of low- p_T measurements,” *11th International Workshop on the CKM Unitarity Triangle (CKM 2021)*, 22–26 Nov 2021, fully virtual, Australia
18. V A Mitsou, “Hunting magnetic monopoles and more at the LHC: Q-balls, millicharged particles, axions, ...” **(invited plenary)**, *2021 Shanghai Particle Physics and Cosmology Symposium (SPCS2021): Emerging frontiers of Dark Photon, Axion, Fractional Charge Particle and Monopole*, 19–21 Nov 2021, Shanghai, China
19. V A Mitsou *for the MoEDAL Collaboration*, “Results and future plans of the MoEDAL experiment,” *European Physical Society Conference on High Energy Physics (EPS-HEP2021)*, 26–30 Jul 2021, fully virtual, Germany
20. V A Mitsou, “LHC experiments for long-lived particles of the dark sector” **(invited)**, *Sixteenth Marcel Grossmann Meeting – MG16*, 5–10 Jul 2021, fully virtual, Italy
21. V A Mitsou *for the MoEDAL Collaboration*, “The MoEDAL dedicated LHC experiment, MAPP and other future projects” **(invited plenary)**, *2020 Meeting of the Division of Particles and Fields of the Korean Physical Society*, 3–4 Dec 2020, fully virtual, South Korea
22. V A Mitsou, “MoEDAL, FASER and future experiments targeting dark sector & long-lived particles” **(invited)**, *8th Annual Large Hadron Collider Physics (LHCP2020)*, 25–30 May 2020, fully virtual, France
23. V A Mitsou, “The MoEDAL experiment and MAPP & MALL extensions,” *Searching for long-lived particles at the LHC: 7th workshop of the LHC LLP Community*, 25–27 May 2020, fully virtual
24. V A Mitsou *for the ATLAS & CMS Collaborations*, “SUSY searches in ATLAS and CMS” **(plenary)**, *19th Hellenic School and Workshops on Elementary Particle Physics and Gravity: Workshop on Connecting Insights in Fundamental Physics: Standard Model and Beyond*, 31 Aug – 11 Sep 2019, Corfu, Greece
25. V A Mitsou *for the MoEDAL Collaboration*, “MoEDAL physics results and future plans” **(invited plenary)**, *19th Hellenic School and Workshops on Elementary Particle Physics and Gravity: Workshop on Connecting Insights in Fundamental Physics: Standard Model and Beyond*, 31 Aug – 11 Sep 2019, Corfu, Greece
26. V A Mitsou *for the ATLAS & MoEDAL Collaborations*, “Magnetic monopoles at the LHC” **(invited plenary)**, *25th International Symposium on Particles, Strings and Cosmology (PASCOS 2019)*, 1–5 Jul 2019, Manchester, UK
27. V A Mitsou, K Sakurai, D Felea, J Mamuzic, N E Mavromatos, J L Pinfold, R Ruiz de Austri, A Santra, O Vives, “SUSY discovery prospects with MoEDAL” **(invited)**, *6th Symposium on Prospects in the Physics of Discrete Symmetries (DISCRETE 2018)*, 26–30 Nov 2018, Vienna, Austria
28. V A Mitsou, “Monopole production via photon fusion at the LHC” **(invited plenary)**, *18th Hellenic School and Workshops on Elementary Particle Physics and Gravity: Workshop on the Standard Model and Beyond*, 31 Aug – 9 Sep 2018, Corfu, Greece
29. V A Mitsou, “Searches for magnetic monopoles: a review” **(invited plenary)**, *7th International Conference on New Frontiers in Physics (ICNFP 2018)*, 4–12 Jul 2018, Kolymbari, Crete, Greece
30. V A Mitsou, “Dark Matter: Experimental and Observational Status” **(invited)**, *15th Marcel Grossmann Meeting - MG15*, 1–7 Jul, 2018, Rome, Italy

31. V A Mitsou for the MoEDAL Collaboration, “MoEDAL results, current developments and future plans” **(plenary)**,
LHC Working Group on Forward Physics and Diffraction (LHCForwardWG2018), 20–23 Mar 2018, Madrid, Spain
32. V A Mitsou, “The Quest for Magnetic Monopoles: Past, Present and Future” **(invited plenary)**,
17th Hellenic School and Workshops on Elementary Particle Physics and Gravity: Workshop on Testing Fundamental Physics Principles, 22–28 Sep 2017, Corfu, Greece
33. V A Mitsou for the MoEDAL Collaboration, “Searches for magnetic monopoles and beyond with MoEDAL at the LHC” **(invited plenary)**,
International Conference on Exotic Atoms and Related Topics – EXA2017, 11–15 Sep 2017, Vienna, Austria
34. V A Mitsou for the MoEDAL Collaboration, “Searches for New Physics with the MoEDAL detector at the LHC” **(invited plenary)**,
17th Hellenic School and Workshops on Elementary Particle Physics and Gravity: Workshop on the Standard Model and Beyond, 2 – 10 Sep 2017, Corfu, Greece
35. V A Mitsou for the ATLAS Collaboration, “Hunting New Physics with ATLAS” **(invited)**,
6th International Conference on New Frontiers in Physics (ICNFP 2017), 17–29 Aug 2017, Kolymbari, Crete, Greece
36. V A Mitsou, J Mamuzic, N E Mavromatos, J L Pinfold, R Ruiz de Austri, K Sakurai, O Vives, “Long-lived charged supersymmetric particles and MoEDAL” **(invited special session)**,
6th International Conference on New Frontiers in Physics (ICNFP 2017), 17–29 Aug 2017, Kolymbari, Crete, Greece
37. V A Mitsou for the MoEDAL Collaboration, “Hunting magnetic monopoles and more with MoEDAL at the LHC” **(plenary)**,
13th Patras Workshop on Axions, WIMPs and WISPs, 15–19 May 2017, Thessaloniki, Greece
38. V A Mitsou for the MoEDAL Collaboration, “The MoEDAL experiment at the LHC: status and results” **(invited plenary)**,
DISCRETE 2016: Fifth Symposium on Prospects in the Physics of Discrete Symmetries, 28 Nov – 3 Dec 2016, Warsaw, Poland
39. V A Mitsou for the MoEDAL Collaboration, “Status, results and prospects from the MoEDAL experiment at LHC” **(invited plenary)**,
16th Hellenic School and Workshops on Elementary Particle Physics and Gravity: Summer School and Workshop on the Standard Model and Beyond, 31 Aug – 12 Sep 2016, Corfu, Greece
40. V A Mitsou for the ATLAS Collaboration, “SUSY searches with the ATLAS detector” **(plenary)**,
16th Hellenic School and Workshops on Elementary Particle Physics and Gravity: Summer School and Workshop on the Standard Model and Beyond, 31 Aug – 12 Sep 2016, Corfu, Greece
41. V A Mitsou for the MoEDAL Collaboration, “Exploring supersymmetry at the LHC using the MoEDAL detector” **(invited special session)**,
5th International Conference on New Frontiers in Physics ICNFP 2016, 6–14 Jul 2016, Kolymbari, Crete, Greece
42. V A Mitsou, “Conciliating SUSY with the Z-peaked excess” **(invited plenary)**,
ICNFP 2015: 4th International Conference on New Frontiers in Physics, 23 – 30 Aug 2015, Kolymbari, Crete, Greece
43. V A Mitsou for the MoEDAL Collaboration, “MoEDAL: Seeking magnetic monopoles and more at the LHC,”
European Physical Society Conference on High Energy Physics (EPS-HEP2015), 22–29 Jul 2015, Vienna, Austria
44. V A Mitsou, “R-parity violating supersymmetry and neutrino physics: experimental signatures” **(invited)**,
PLANCK 2015: 18th International Conference from the Planck Scale to the Electroweak Scale, 25–29 May 2015, Ioannina, Greece

45. V A Mitsou, “Exploring neutrino physics at LHC via R-parity violating SUSY” **(invited)**, *DISCRETE 2014: Fourth Symposium on Prospects in the Physics of Discrete Symmetries*, 2–6 Dec 2014, London, UK
46. V A Mitsou *for the MoEDAL Collaboration*, “The Physics Case for the MoEDAL Experiment at LHC” **(invited)**, *ICNFP 2014: 3rd International Conference on New Frontiers in Physics*, 28 Jul – 6 Aug 2014, Kolymbari, Crete, Greece
47. V A Mitsou *for the ATLAS Collaboration*, “ATLAS Searches for non-SUSY Exotics at the LHC” **(invited plenary)**, *SUSY2014: The 22nd International Conference on Supersymmetry and Unification of Fundamental Interactions*, 21–26 Jul 2014, Manchester, UK
48. V A Mitsou, “Experimental status of supersymmetry” **(invited plenary)**, *Questioning Fundamental Physical Principles*, 6–9 May 2014, CERN, Geneva, Switzerland
49. V A Mitsou, “Status of Dark Matter Searches at the LHC” **(plenary)**, *Dark Ghosts – 1st GNN Workshop on Indirect Dark Matter Searches*, 10–11 Apr 2014, Valencia, Spain
50. V A Mitsou, “Overview of searches for dark matter at the LHC” **(invited plenary)**, *XIV Mexican Workshop on Particles and Fields*, 25–29 Nov 2013, Ciudad de Oaxaca, Oaxaca, Mexico
51. V A Mitsou, “Probing neutrino physics at LHC through R-parity breaking SUSY” **(invited plenary)**, *ICNFP 2013: International Conference on New Frontiers in Physics*, 28 Aug – 5 Sep 2013, Kolymbari, Crete, Greece
52. V A Mitsou, “Experimental status of Particle and Astroparticle searches for Supersymmetry” **(invited plenary)**, *DISCRETE2012: Third Symposium on Prospects in the Physics of Discrete Symmetries*, 3–7 Dec 2012, Lisbon, Portugal
53. V A Mitsou, “Higgs Boson Searches in the ATLAS Experiment at the LHC” **(invited plenary)**, *Science on the Strand: Outlook in Particle Physics*, 2 Oct 2012, King’s College, London, UK
54. V A Mitsou *for the ATLAS Collaboration*, “Highlights from SUSY Searches with ATLAS” **(invited)**, *ICFP 2012: International Conference on New Frontiers in Physics*, 10–16 Jun 2012, Kolymbari, Crete, Greece
55. V A Mitsou, “ATLAS Searches for R-Parity violating SUSY” **(invited plenary)**, *Workshop on Searches for Supersymmetry at the LHC*, 19–21 Oct 2011, Lawrence Berkeley National Laboratory, CA, USA
56. V A Mitsou *for the ATLAS SCT Collaboration*, “ATLAS Silicon Microstrip Tracker: Operation and Performance,” *13th ICATPP Conference on Astroparticle, Particle, Space Physics and Detectors for Physics Applications: Experimental particle physics, detection of astrophysical sources and cosmic rays as tools for probing the contents of the Universe*, 3–7 Oct 2011, Como, Italy
57. V.A. Mitsou *for the ATLAS Collaboration*, “Dark Matter searches at LHC” **(invited plenary)**, *DISCRETE2010: Symposium on Prospects in the Physics of Discrete Symmetries*, 6–11 Dec 2010, Rome, Italy
58. V A Mitsou, “Constraining Super-Critical String/Brane Cosmologies with Astrophysical Data,” *11th International Conference on Topics in Astroparticle and Underground Physics (TAUP 2009)*, 1–5 Jul 2009, Rome, Italy
59. V A Mitsou, “Constraints on Dissipative Non-Equilibrium Dark Energy Models from Recent Supernova Data” **(plenary)**, *Lake Louise Winter Institute 2007: Fundamental Interactions*, 19–24 Feb 2007, Alberta, Canada
60. V A Mitsou *for the ATLAS SCT Collaboration*, “Readout Electronics Tests and Integration of the ATLAS Semiconductor Tracker” **(plenary)**, *12th Workshop on Electronics for LHC and Future Experiments (LECC 2006)*, 25–29 Sep 2006, Valencia, Spain

61. V A Mitsou, “Confronting Non-Equilibrium Dark Energy Models with Supernova Data” (poster), *Bernard’s Cosmic Stories*, 26–30 Jun 2006, Valencia, Spain
62. V.A. Mitsou *for the ATLAS SCT Collaboration*, “Performance of the ATLAS SCT Readout System” (poster), *14th IEEE-NPSS Real Time Conference 2005 (RT2005)*, 4–10 Jun 2005, Stockholm, Sweden
63. V A Mitsou, “Prospects for Leptoquark Searches with ATLAS at the LHC,” *Conference on Physics at LHC*, 13–17 Jul 2004, Vienna, Austria
64. V A Mitsou *for the ATLAS Collaboration*, “QCD Studies at the LHC with ATLAS” (**plenary**), *11th International Conference in Quantum Chromodynamics (QCD 04)*, 5–9 Jul 2004, Montpellier, France
65. V A Mitsou *for the ATLAS TRT Collaboration*, “The ATLAS Transition Radiation Tracker”, *8th International Conference on Advanced Technology and Particle Physics (ICATPP 2003): Astroparticle, Particle, Space Physics, Detectors and Medical Physics Applications*, 6–10 Oct 2003, Como, Italy
66. V A Mitsou *for the ATLAS Collaboration*, “Search for new physics with ATLAS at the LHC” (**plenary**), *Lake Louise Winter Institute 2000: From Particles to the Universe*, 20–26 Feb 2000, Alberta, Canada

Invited Lectures in International Schools

1. V A Mitsou, “Magnetic Monopoles in Colliders and in the Cosmos,” *11th Aegean Summer School – Recent Developments in Theory and Observations in Gravity and Cosmology*, 5–15 Sep 2022, Ermoupolis, Syros, Greece
2. V A Mitsou, “ATLAS Physics Results”, two lectures, *XII-th International School-Seminar: The Actual Problems of Microworld Physics*, 22 Jul – 2 Aug, 2013, Gomel, Belarus

Presentations in National Conferences & Workshops

1. V A Mitsou, “Cosmic and laboratory searches for magnetic monopoles,” *Compact Objects in Modified Theories of Gravity*, 15–18 Sep 2023, Athens, Greece
2. V A Mitsou, “Dedicated experiments for feebly interacting particles,” *HEP2023 – 40th Conference on Recent Developments in High Energy Physics and Cosmology*, 5–8 Apr 2023, Ioannina, Greece
3. V A Mitsou *for the MoEDAL Collaboration*, “First search for magnetic monopoles through the Schwinger mechanism,” *HEP2022 – 39th Conference on Recent Developments in High Energy Physics and Cosmology*, 15–18 Jun 2022, Thessaloniki, Greece
4. V A Mitsou, “Search for magnetic monopoles produced via the Schwinger mechanism,” *6th Red LHC Workshop*, 9–11 May 2022, Madrid, Spain
5. V A Mitsou, “LHC dedicated experiments for long-lived particles,” “*LLP*” *Round Table*, *6th Red LHC Workshop*, 9–11 May 2022, Madrid, Spain
6. V A Mitsou, “SUSY searches in ATLAS and new directions,” *XI CPAN Days*, 21 – 23 Oct 2019, Oviedo, Spain
7. V A Mitsou *for the MoEDAL Collaboration*, “Recent physics results and future plans from the MoEDAL experiment,” *HEP 2019 – Conference on Recent Developments in High Energy Physics and Cosmology*, 17–20 Apr 2019, Athens, Greece
8. V A Mitsou, K Sakurai, D Felea, J Mamuzic, N E Mavromatos, J L Pinfold, R Ruiz de Austri, A Santra, O Vives, “Prospects for SUSY discovery with MoEDAL,” *The Quest for New Physics*, 12–14 Dec 2018, Valencia, Spain
9. V A Mitsou, “Magnetic monopole searches in colliders and in cosmic observatories,” *NEB18 – Recent Developments in Gravity and Relativity*, 20–23 Sep 2018, Rhodes, Greece
10. V A Mitsou, “SUSY: the experimental evidence... or lack thereof ...,” “*Supersymmetry*” *Round Table*, *2nd Red LHC Workshop*, 9–11 May 2018, Madrid, Spain
11. V A Mitsou and A Santra, “Status and results from the MoEDAL experiment,” *2nd Red LHC Workshop*, 9–11 May 2018, Madrid, Spain

12. V A Mitsou, "Selected results from ATLAS SUSY searches: Focus on compressed spectra," *HEP 2018: Recent Developments in High Energy Physics and Cosmology*, 28 Mar – 1 Apr 2018, Athens, Greece
13. V A Mitsou, "The MoEDAL Experiment – Searching for Highly Ionising Particles at the LHC," *IX CPAN Days*, 23 – 25 Oct 2017, Santander, Spain
14. V A Mitsou, "Massive stable charged particles for the MoEDAL experiment," "*Experimental wish list*" *Round Table*, *1st Spanish LHC Network Meeting*, 8–9 May 2017, Madrid, Spain
15. J Mamuzic and V A Mitsou, "ATLAS SUSY analysis with 2 leptons," *1st Spanish LHC Network Meeting*, 8–9 May 2017, Madrid, Spain
16. V A Mitsou, "Recent searches for non-standard SUSY in ATLAS," *HEP 2017 – Recent Developments in High Energy Physics and Cosmology*, 6-9 Apr 2017, Ioannina, Greece
17. V A Mitsou, "First search for magnetic monopoles from the MoEDAL LHC experiment," *HEP 2016 – Conference on Recent Developments in High Energy Physics and Cosmology*, 12–15 May 2016, Thessaloniki, Greece
18. V A Mitsou, "Supersymmetry after LHC Run-I: Where do we stand?" *HEP 2015 – Conference on Recent Developments in High Energy Physics and Cosmology*, 15–18 Apr 2015, Athens, Greece
19. V A Mitsou, "Status Report of MoEDAL," *XLIII International Meeting on Fundamental Physics*, 25–21 Mar 2015, Benasque, Spain
20. V A Mitsou, "Non-standard SUSY searches at the LHC," *Physics Challenges in the face of LHC-14*, 15–26 Sep 2014, Madrid, Spain
21. V A Mitsou, "Status and latest results from ATLAS," *IV CPAN Days*, 26–28 Nov 2012, Granada, Spain
22. V A Mitsou, "SUSY searches at the LHC," *XL International Meeting on Fundamental Physics*, 24 May – 3 Jun 2012, Benasque, Spain
23. V A Mitsou, "Probing supersymmetry with and without R-parity at the LHC," *HEP2012: Recent Developments in High Energy Physics and Cosmology*, 5–8 Apr 2012, Ioannina, Greece
24. V A Mitsou, "Searching and Constraining Dark Matter in Colliders," *XXIX Workshop on Recent Developments in High Energy Physics and Cosmology*, 14–16 Apr 2011, Patras, Greece
25. V A Mitsou, "Performance of the ATLAS Inner Detector with First Data," *XXVIII Workshop on Recent Advances in Particle Physics and Cosmology*, 25–28 Mar 2010, Thessaloniki, Greece
26. V A Mitsou, "Supersymmetry Searches at the LHC," *1st Meeting of the Network of Physics at LHC*, 28–30 Oct 2009, Granada, Spain
27. V A Mitsou, "Detecting long-lived supersymmetric particles at LHC," *XXVII Workshop on Recent Developments in High Energy Physics and Cosmology*, 21–23 May 2009, Athens, Greece
28. V A Mitsou, "LHC signals for SUSY discovery and measurements," *PROMETEO I: LHC Physics and Cosmology*, 2-6 Mar 2009, Valencia, Spain
29. V A Mitsou, "ATLAS potential for discovering supersymmetry," *XXVI Workshop on Recent Developments in High Energy Physics and Cosmology*, 16–19 Apr 2008, Ancient Olympia, Greece
30. V A Mitsou, "Confronting Non-Equilibrium Dark Energy Models with Astrophysical Data," *HEP2006: Recent Developments in High Energy Physics and Cosmology*, 13–16 Apr 2006, Ioannina, Greece

31. V A Mitsou, "Design and status of the ATLAS Semiconductor Tracker,"
2005 Workshop on Recent Advances in Particle Physics and Cosmology, 21–24 Apr 2005, Thessaloniki, Greece
32. V A Mitsou, "Construction and quality control of the Transition Radiation Tracker for the ATLAS experiment,"
HEP 2003: Current Developments in High Energy Physics and Cosmology, 17–20 Apr 2003, Athens, Greece
33. V A Mitsou, "Search for new physics with ATLAS at the LHC,"
HEP 2000: Current Developments in High Energy Physics, 20–23 Apr 2000, Ioannina, Greece
34. V A Mitsou, "Setup for testing the ATLAS MDTs at the University of Athens,"
High Energy Physics in the Eve of the 21st Century, 20–22 Apr 1997, Heraklion, Greece

Talks in Regional & Collaboration Workshops & Meetings

1. V A Mitsou, "Overview of ATLAS BSM and MoEDAL,"
AITANA Annual Meeting 2023/2024 – Matter & Technology, 1–2 Feb 2024, Valencia, Spain
2. V A Mitsou and E Musumeci, "Indirect constraints on magnetic monopoles from diphoton events,"
20th MoEDAL Collaboration Meeting, 11–13 Dec 2023, CERN, Geneva, Switzerland
3. V A Mitsou and O Vives, "MoEDAL-MAPP – dark matter and beyond,"
Jornadas Científicas del IFIC, L4: Baryogenesis, dark matter and cosmic messengers, 1 Mar 2023, Valencia, Spain
4. V A Mitsou, "MoEDAL activities and plans for 2023,"
AITANA Annual Meeting 2022 – Matter & Technology, 20 Jan 2023, Valencia, Spain
5. V A Mitsou, "The MoEDAL experiment and MAPP,"
AITANA Annual Meeting 2021 – MATTER, 21–22 Oct 2021, Valencia, Spain
6. V A Mitsou, K Sakurai, D Felea, J Mamuzic, N E Mavromatos, J L Pinfold, R Ruiz de Austri, A Santra, O Vives, "SUSY at MoEDAL,"
10th MoEDAL Collaboration Meeting, 17–19 Dec 2018, CERN, Geneva, Switzerland
7. V A Mitsou, J Mamuzic, N E Mavromatos, J L Pinfold, R Ruiz de Austri, K Sakurai, A Santra, O Vives, "SUSY at MoEDAL,"
9th MoEDAL Collaboration Meeting, 23–25 Jun 2018, Vaasa, Finland
8. V A Mitsou, J Mamuzic, N E Mavromatos, J L Pinfold, R Ruiz de Austri, K Sakurai, O Vives, "Update on SUSY studies,"
8th MoEDAL Collaboration Meeting, 14–16 Dec 2017, CERN, Geneva, Switzerland
9. V A Mitsou, A Santra, A Shaa, " β -dependent coupling in photon fusion: Present status of MadGraph models,"
8th MoEDAL Collaboration Meeting, 14–16 Dec 2017, CERN, Geneva, Switzerland
10. V A Mitsou, "Monopole production through photon fusion,"
6th MoEDAL Collaboration Meeting, 12–13 Dec 2016, CERN, Geneva, Switzerland
11. V A Mitsou, "The search for SUSY with MoEDAL,"
6th MoEDAL Collaboration Meeting, 12–13 Dec 2016, CERN, Geneva, Switzerland
12. V A Mitsou, "What can MoEDAL do to reveal supersymmetric scenarios,"
5th MoEDAL Collaboration Meeting, 28–29 Jun 2016, Valencia, Spain
13. V A Mitsou, "MoEDAL: Looking for magnetic monopoles and other exotics at LHC,"
IVICFA-PROMETEO Fridays: Experimental Physics, 3 Oct 2014, Valencia, Spain
14. V A Mitsou, "Report of the MoEDAL Software Group,"
2nd MoEDAL Collaboration Meeting, 19–21 Jun 2014, CERN, Geneva, Switzerland
15. V A Mitsou, "Presentation of the IFIC Valencia group,"
First MoEDAL Physics Workshop, 20–21 Jun 2012, CERN, Geneva, Switzerland
16. V A Mitsou, "Latest results in SUSY with R-parity breaking in ATLAS,"
II PCI2010 Workshop & PCI 2011 kick off meeting, 10–12 Jan 2012, Valencia, Spain

17. V A Mitsou, “R-parity violation searches: status and plans,” *ATLAS SUSY Workshop*, 16–17 Mar 2011, CERN, Geneva, Switzerland
18. V A Mitsou, “Search for R-parity violating supersymmetry with ATLAS,” *II PCI2009 Workshop*, 18–19 Nov 2010, Valencia, Spain
19. V A Mitsou, “Lepton triggers for prompt RPV SUSY,” *ATLAS Trigger Workshop*, 18–22 Oct 2010, Amsterdam, Netherlands
20. V A Mitsou, “ATLAS Silicon Detector Assembly at IFIC Valencia,” *7th Workshop of the network “The 3rd Generation as a Probe for New Physics”*, 8–10 Feb 2006, Prague, Czech Republic
21. V A Mitsou, “SCT modules production at IFIC Valencia,” *6th Workshop of Collaboration CNM-IFIC*, 20–21 Oct 2005, Valencia, Spain
22. V A Mitsou and J Salt, “GRID Computing at IFIC Valencia,” *5th Workshop of the network “The 3rd Generation as a Probe for New Physics”*, 22–25 Feb 2005, Karlsruhe, Germany
23. V A Mitsou, “The ATLAS Semiconductor Tracker” & “Research activities in ATLAS/LHC,” *Midterm review of the network “The 3rd Generation as a Probe for New Physics”*, 27–28 Sep 2004, Paris, France
24. V A Mitsou, “Search for Leptoquarks with ATLAS at the LHC,” *4th Workshop of the network “The 3rd Generation as a Probe for New Physics”*, 5–7 May 2004, Pisa, Italy
25. V A Mitsou, “Laser test of ATLAS SCT modules in IFIC Valencia,” *4th Workshop of the network “The 3rd Generation as a Probe for New Physics”*, 5–7 May 2004, Pisa, Italy
26. V A Mitsou, “Geant4 simulation of transition radiation in the ATLAS TRT,” *ATLAS TRT Workshop*, 4–10 May 2001, Istanbul, Turkey
27. V A Mitsou, “Gas distribution uniformity in the end-cap TRT,” *ATLAS TRT Workshop*, 4–10 May 2001, Istanbul, Turkey
28. V A Mitsou, “Geant4 simulation of transition radiation in the ATLAS TRT,” *ATLAS Geant4 Physics Validation Workshop*, 4–5 Dec, 2000, CERN
29. V A Mitsou, “Tevatron vs. LHC: Comparison of the Higgs discovery potential,” *ATLAS Week, Physics Plenary Meeting*, 8 Jun 1999, CERN, Geneva, Switzerland
30. V A Mitsou, “Straw reinforcement quality control tests at CERN,” *ATLAS TRT Workshop*, 31 May – 6 Jun 1999, Krakow, Poland

Colloquia & Seminars

1. V A Mitsou, “MoEDAL-MAPP – Searching for New Physics in the Lifetime Frontier,” National Technical University of Athens, Greece, 30 May 2024
2. V A Mitsou, “MoEDAL-MAPP – Probing New Physics in the Lifetime Frontier,” Department of Physics & Astronomy, University of Sussex, UK, 22 Feb 2024
3. V A Mitsou, “Magnetic monopoles – From Dirac to the Large Hadron Collider,” Department of Physics, National & Kapodistrian University of Athens, Greece, 7 Jun 2023
4. V A Mitsou, “Exploring the lifetime frontier with MoEDAL and MAPP,” Instituto de Física, Universidad Nacional Autónoma de México (UNAM), Mexico City, Mexico, 8 Jun 2022
5. V A Mitsou for the MoEDAL Collaboration, “Expanding the LHC’s discovery horizon: Recent results from the MoEDAL detector at the LHC,” [CERN EP Seminar](#), 22 Mar 2022
6. V A Mitsou, “Hunt for supersymmetry, dark matter and other new phenomena at the LHC,” Department of Physics, National & Kapodistrian University of Athens, Greece, 8 Nov 2016
7. V A Mitsou, “MoEDAL: Hunting highly ionising particles at the LHC,” Departamento de Física Teórica y del Cosmos, Universidad de Granada, Spain, 15 Dec 2014
8. V A Mitsou, “The Quest for Supersymmetry: Where do we stand?” Instituto de Ciencias Nucleares, Universidad Nacional Autónoma de México (UNAM), Mexico City, Mexico, 4 Dec 2013

9. V A Mitsou, "Recent results of searches for Supersymmetry with ATLAS," Instituto de Física Teórica (IFT), CSIC – Universidad Autónoma de Madrid, Madrid, Spain, 25 Feb 2012
10. V A Mitsou, "Prospects for standard and non-standard SUSY searches at LHC," School of Applied Mathematical and Physical Science, National Technical University of Athens, Greece, 25 Nov 2008
11. V A Mitsou, "ATLAS Constraining SUSY Dark Matter with ATLAS at the LHC," Department of Physics, National & Kapodistrian University of Athens, Greece, 30 Sep 2008
12. V A Mitsou, "ATLAS potential for discovering and measuring supersymmetry at LHC," Instituto de Física Corpuscular (IFIC), Valencia, Spain, 9 Jun 2008
13. V A Mitsou, "ATLAS Inner Detector status and physics beyond the Standard Model with LHC," Institute of Nuclear Physics, NCSR "Demokritos," Athens, Greece, 31 Aug 2006
14. V A Mitsou, "Track selection for the alignment of the ATLAS silicon tracker," Department of Physics, Royal Holloway, University of London, United Kingdom, 27 Jun 2006
15. V A Mitsou, "ATLAS SCT modules construction and testing," Laboratoire de Physique Nucleaire et des Hautes Energies (LPNHE), Paris, France, 9 Dec 2004
16. V A Mitsou, "Search for Leptoquarks with ATLAS at the LHC," Department of Physics, National & Kapodistrian University of Athens, Greece, 22 Oct 2003

Presentations in Conferences & Workshops as Co-author

1. E Musumeci, A Irles, R Perez-Ramos, I Corredoira, E Sarkisyan-Grinbaum, V A Mitsou, M A Sanchis Lozano, "Probing New Physics at future e^+e^- colliders with two-particle angular correlations" (poster), *ICHEP2024 – 42nd International Conference on High Energy Physics*, 18–24 Jul 2024, Prague, Czech Republic
2. J Alexandre, N E Mavromatos, V A Mitsou, E Musumeci, "Revisiting experimental mass limits on HECOs using Dyson-Schwinger resummation," *ICHEP2024 – 42nd International Conference on High Energy Physics*, 18–24 Jul 2024, Prague, Czech Republic
3. E Musumeci, A Irles, R Perez-Ramos, I Corredoira, E Sarkisyan-Grinbaum, V A Mitsou, M A Sanchis Lozano, "Investigating hidden sectors at future e^+e^- colliders through two-particle angular correlations," *LCWS2024 – International Workshop on Future Linear Colliders*, 8–11 Jul 2024, Tokyo, Japan
4. E Musumeci, J Alexandre, N E Mavromatos, V A Mitsou, "Exploring mass limits of high electrically charged objects through Dyson-Schwinger resummation," *SUSY2024: 31st International Conference on Supersymmetry and Unification of Fundamental Interactions*, 10–14 Jun 2024, Madrid, Spain
5. I Corredoira, E Musumeci, V A Mitsou, A Irles, R Perez-Ramos, E Sarkisyan-Grinbaum, M A Sanchis Lozano, "Uncovering new physics through two-particle angular correlations in high-energy collisions," *SUSY2024: 31st International Conference on Supersymmetry and Unification of Fundamental Interactions*, 10–14 Jun 2024, Madrid, Spain
6. E Musumeci, A Irles, R Perez-Ramos, I Corredoira, E Sarkisyan-Grinbaum, V A Mitsou, M A Sanchis Lozano, "Exploring the Hidden Sector with two-particle angular correlations at future e^+e^- colliders," *Future Colliders for Early-Career Researchers*, 27 Sep 2023, CERN, Geneva, Switzerland
7. E Musumeci, J Alexandre, N E Mavromatos, V A Mitsou, "Resummation effects in HECO pair production at the LHC: UFO implementation," *LHCP 2023 - Large Hadron Collider Physics Conference*, 22–26 May 2023, Belgrade, Serbia
8. E Musumeci, R Perez-Ramos, A Irles, I Corredoira, V A Mitsou, M A Sanchis Lozano, "Exploring hidden sectors at future e^+e^- colliders with particle correlations," *LCWS2023 – International Workshop on Future Linear Colliders*, 15–19 May 2023, SLAC, Menlo Park CA, USA
9. E Musumeci and V A Mitsou, "Magnetic monopoles search with diphoton events at the LHC," *XIV CPAN Days*, 23–25 Nov 2022, Bilbao, Spain

10. E Musumeci and V A Mitsou, “Magnetic Monopoles search at the LHC with $\gamma\gamma$ events,”
TAE 2022 – International Workshop on High Energy Physics, 7–17 Sep 2022, Benasque, Spain
11. E Musumeci and V A Mitsou, “Search for magnetic monopoles with diphoton events at the LHC,”
ICHEP 2022 – 41st International Conference on High Energy Physics, 6–13 Jul 2022, Bologna, Italy
12. R Masetek, M M Altakach, P Lamba, K Sakurai and V A Mitsou, “Long-lived highly charged particles at Run-3 and High Luminosity LHC,”
7th Symposium on Prospects in the Physics of Discrete Symmetries – DISCRETE 2020-2021, 29 Nov – 3 Dec 2021, Bergen, Norway
13. K Sakurai, V A Mitsou *et al*, “Long-lived SUSY particle searches at MoEDAL,”
12th MoEDAL Collaboration Meeting, 5–7 Dec 2019, CERN, Geneva, Switzerland
14. J Mamuzic, V A Mitsou, A Santra, “Search for $t\bar{t}j$ & $q\bar{q}j$ resonances: motivated by bilinear RPV,”
ATLAS Supersymmetry Workshop, 24–27 Sep 2019, Lecce, Italy
15. O Vives, K Sakurai, D Felea, J Mamuzic, N E Mavromatos, V A Mitsou, J L Pinfold, R Ruiz de Austri, A Santra, “End of the SUSY analysis,”
11th MoEDAL Collaboration Meeting, 5–7 Jun 2019, Prague, Czech Republic
16. K Sakurai, J Mamuzic, N E Mavromatos, V A Mitsou, J L Pinfold, R Ruiz de Austri, A Santra, O Vives, “Long-lived particle searches at MoEDAL,”
SUSY 2018 - 26th International Conference on Supersymmetry and Unification of Fundamental Interactions, 23–27 Jul 2018, Barcelona, Spain
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 ✎ Contribution to discussions on reinterpretation strategies and techniques based on related experience

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 ✎ Sole author of Chapters 5, 6, 7 on monopole searches and contribution to summary (Ch. 8)
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 ✎ Contact editor. Bilinear RPV analysis coordination and strategy and bRPV sensitivity studies. Studies on resonant RPV production in bRPV model. Paper and support note editor. Supervisor of two postdocs serving as analysis contact, EWK combination contact and providing input to background forum; also contributing to cross-section calculation, theory uncertainty estimation, MC samples and b -tagging optimization. Contact to RPC-meets-RPV interpretation.
- [2] G Aad et al [ATLAS Collaboration], “Searches for new phenomena in events with two leptons, jets, and missing transverse momentum in 139 fb^{-1} of $\sqrt{s} = 13$ TeV pp collisions with the ATLAS detector,”
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 → *INSPIRE TOPCITE = 50+ with 81 citations*
 ✎ Supervisor of a postdoc on flavour-symmetry method, signal model generation and RECAST implementation.

- [3] G Aad *et al* [ATLAS Collaboration], “Search for electroweak production of charginos and sleptons decaying into final states with two leptons and missing transverse momentum in $\sqrt{s} = 13$ TeV pp collisions using the ATLAS detector,”
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 ✎ Member of the Editorial Board
- [4] M Aaboud *et al* [ATLAS Collaboration], “Search for new phenomena using the invariant mass distribution of same-flavour opposite-sign dilepton pairs in events with missing transverse momentum in $\sqrt{s} = 13$ TeV pp collisions with the ATLAS detector,”
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 ✎ Supervisor of two postdocs on top and diboson theory uncertainties, signal MC generation, edge optimization studies and fakes studies
- [5] M Aaboud *et al* [ATLAS Collaboration], “Search for electroweak production of supersymmetric states in scenarios with compressed mass spectra at $\sqrt{s} = 13$ TeV with the ATLAS detector,”
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 ✎ Supervisor of one postdoc on NUHM2 interpretation
- [6] M Aaboud *et al* [ATLAS Collaboration], “Search for new phenomena in events containing a same-flavour opposite-sign dilepton pair, jets, and large missing transverse momentum in $\sqrt{s} = 13$ TeV pp collisions with the ATLAS detector,”
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 ✎ Supervisor of two postdocs on QuickAna-based analysis framework development and edge interpretations and results
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 → *INSPIRE TOPCITE* = 50+ with 53 citations
 ✎ Analysis team advisor collaborating with theorists associated with ATLAS, experts on dark matter
- [8] G Aad *et al* [ATLAS Collaboration], “Summary of the searches for squarks and gluinos using $\sqrt{s} = 8$ TeV pp collisions with the ATLAS experiment at the LHC,”
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 → *INSPIRE TOPCITE* = 100+ with 235 citations
 ✎ MC samples production and uncertainties calculation for combined bRPV-MSUGRA exclusion limits
- [9] G Aad *et al* [ATLAS Collaboration], “Search for supersymmetry in events containing a same-flavour opposite-sign dilepton pair, jets, and large missing transverse momentum in $\sqrt{s} = 8$ TeV pp collisions with the ATLAS detector,”
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 → *INSPIRE TOPCITE* = 100+ with 141 citations
 ✎ Analysis initiator and lead analyser overseeing all aspects of the analysis. Supervisor of two PhD students

- [10] G Aad *et al* [ATLAS Collaboration], “Search for squarks and gluinos in events with isolated leptons, jets and missing transverse momentum at $\sqrt{s} = 8$ TeV with the ATLAS detector,”
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🔍 MC samples production and uncertainties calculation for bRPV-MSUGRA exclusion limits
- [12] G Aad *et al* [ATLAS Collaboration], “Search for supersymmetry at $\sqrt{s} = 8$ TeV in final states with jets and two same-sign leptons or three leptons with the ATLAS detector,”
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- [13] G Aad *et al* [ATLAS Collaboration], “Search for direct production of charginos, neutralinos and sleptons in final states with two leptons and missing transverse momentum in pp collisions at $\sqrt{s} = 8$ TeV with the ATLAS detector,”
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→ INSPIRE TOPCITE = 500+ with 504 citations
🔍 Member and interim chair of the Editorial Board
- [14] G Aad *et al* [ATLAS Collaboration], “Search for long-lived stopped R-hadrons decaying out-of-time with pp collisions using the ATLAS detector,”
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🔍 Member of the Editorial Board. Proposed stop and sbottom interpretations.
- [15] G Aad *et al* [ATLAS Collaboration], “Further search for supersymmetry at $\sqrt{s} = 7$ TeV in final states with jets, missing transverse momentum and isolated leptons with the ATLAS detector,”
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- [17] G Aad *et al* [ATLAS Collaboration], “Search for supersymmetry in final states with jets, missing transverse momentum and one isolated lepton in $\sqrt{s} = 7$ TeV pp collisions using 1 fb^{-1} of ATLAS data,” **Phys. Rev. D**, vol. 85, issue 1, no. 012006, 30 p, 2012
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→ *INSPIRE TOPCITE* = 100+ with 171 citations
✎ bRPV interpretation: MC samples, uncertainties calculation, extraction of bRPV-MSUGRA exclusion limits and improvements to the analysis. Supervision of two PhD students.
- [18] G Aad *et al* [ATLAS Collaboration], “Search for a heavy particle decaying into an electron and a muon with the ATLAS detector in $\sqrt{s} = 7$ TeV pp collisions at the LHC,” **Phys. Rev. Lett.**, vol. 106, issue 25, no. 251801, 18 p, 2011
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✎ Analysis team advisor in the context of the Prompt RPV meetings.
- [19] G Aad *et al* [ATLAS Collaboration], “Search for supersymmetry using final states with one lepton, jets, and missing transverse momentum with the ATLAS detector in $\sqrt{s} = 7$ TeV pp collisions,” **Phys. Rev. Lett.**, vol. 106, issue 13, no. 131802, 19 p, 2011
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→ *INSPIRE TOPCITE* = 100+ with 247 citations
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- ATLAS Collaboration, “Search for direct production of charginos and neutralinos in final states with photons, jets and missing transverse momentum at $\sqrt{s} = 13$ TeV with the ATLAS detector,” *in preparation*
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✎ Internal MoEDAL reviewer and manuscript editor. Overseeing all aspects of the analysis as MoEDAL Analysis Coordinator
- [2] B Acharya *et al* [MoEDAL Collaboration], “MoEDAL search in the CMS beam pipe for magnetic monopoles produced via the Schwinger effect,” **Phys. Rev. Lett.**, vol. 133, issue 7, no. 071803, 7 p, 2024
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→ *Editors' Suggestion*
✎ Overseeing all aspects of the analysis as MoEDAL Analysis Coordinator
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