Kostas KORDAS – short CV

Name	**Konstantinos (***also known as* ***Kostas*****) KORDAS**
Title & Address	**Professor** **Scientific Area:** Experimental Particle Physics Physics Department, Division of Nuclear and Particle Physics Aristotle University of Thessaloniki, University Campus, Thessaloniki, GR-54124 , Greece Tel:+30 2310 994121 / email: kostas.kordas@cern.ch , kostaskordas@auth.gr , kordas@physics.auth.gr
Studies	• **Ph.D in Physics, McGill University, Montreal, Canada (1999),** *Thesis: "Search for Penguin Decays of B mesons at CDF". Prof: Ken RAGAN* • **M.Sc in Physics, McGill University, Montreal, Canada (1993),** *Thesis: "Comparison of CDF Electron Response between Test Beam and Simulation". Prof: Ken RAGAN* • **Ptychion (B.Sc) in Physics, University of Patras, Patras, Greece (1989),** *Thesis: "Photovoltaic elements and applications", Prof. Panayiotis YIANNOYLIS*
Scietific Experience	• **Faculty** (Lecturer 2010-14, Assistant Prof. 2014-18, Associate Prof. 2018-23, Professor 2023-), **Physics Department, Aristotle University of Thessaloniki (AUTh), 2010-** ◦ *ATLAS experiment at CERN, Trigger/DAQ (online event collection and selection), Fast online particle tracking, Statistical Data Analysis with likelihood and Machine Learning techniques, Measreuemnts of particle production cross sections and of Standard Model parameters, Electroweak interactions, Higgs boson, Search for New Physics.* ◦ *Teaching: Modern Physics, Quantum Mechanics, Nuclear Physics, Elementary Particle Physics, Instrumentation for particle Detectors, Cosmic radiation, Analogue Signals and Systems.* • **Collaborating Teaching Staff**, **Hellenic Open University (HOU), 2011-17, 2023-** ◦ *Teaching: "FYE40 – Quantum Phsyics" (Quantum Mechanics, Nuclear Phsyics, Elementary Particle Physics).* • **Corresponding Associate, CERN** (2011, 2012, 2015) ◦ *ATLAS experiment, Measurement of the production of two Z bosons, MicroMegas detectors in the ATLAS TDAQ, Fast Tracker (FTK) for fast online particle tracking.* • **Visiting Researcher**, CAEN Electronics S.p.A, Viareggio, Italy (3&4/2013) and **Visiting Researcher**, *INFN* - Laboratori Nazionali di Frascati, Italy (5/2012) ◦ *Eyropean Project FTK (Fast Tracker) - Fast online particle tracking.* • **Research Associate, University of Bern, Bern, Switzerland, 2007-2009** ◦ *ATLAS experiment, Trigger/DAQ, event building, data-logging, multi-threaded C++, fast networks, shifter training.* • **Assegnio di Ricerca (Research Associate), Laboratori Nazionali di Frascati - INFN, Frascati, Italy, 2004-2006** ◦ *ATLAS experiment, Trigger/DAQ, event building, data-logging, multi-threaded C++, fast networks.* • **Research Associate, University of Toronto, Toronto, Canada, 2002-2004** ◦ *CDF experiment at Fermilab, top quark mass measurement, calorimeter data quality, radiataion field in experimental cavern, calorimeter reconstruction software for caloriemter signals (strip chambers, π^0 – photon separation).* • **Sercheur Associé (Research Associate), LAL, IN2P3/Université Paris-XI, Orsay, France, 2000-2002** ◦ *ATLAS epxeriment at CERN, simulation of LAr EelectroMagnetic calorimeter, Geant4.*
Research Outcome and Activities	• More than 1400 puclications in peer-reviewed international journals (major contribution in 36) with more than 68 thousand citations. • 19 publications in conference procceedings.

Research Outcome and Activities	• Supervision of 3 Ph.D students (finished) and of 5 more running. Supervision of 12 M.Sc students and of 44 last-year undergraduate diploma theses (B.Sc). • "Analysis contact person" in 2 physics analyses in the ATLAS experiemnt. • Editorial Board chair or member for 4 analyses; 3 in ATLAS and 1 in CDF. • Co-translatior and co-curator for the translation of a scientific textbook. • Organization of conferences (3 as responsible and 5 as a member of the organising comittee). • Member of European and National research projects for AUTh (in 1 as a Principal Investigator for AUTh). • 1st Prize for Academic Excellence, Aristotle Univ. of Thessaloníki (2016) • Director of the Graduate Studies Programme (M.Sc) on "Subatomic Physics and Technological Applications" (2021-22, 2023-). • Member of the Governing body of the Greek Society for the Study of High Energy Physics GSSHEP-ΕΕΣΦΥΕ (2013-15, 2017-18). • Management Committee member for Greece in 4 Euopean COST Actions (CA 16108, 22130, 24146 και 24153). • Member of the "ATLAS Speakers Committee" for the selection of speakers for conferences (2019-22). • Member of the ATAS Collaboration Board Chair Advisory body (2026 -).
Five publications	1. A. Aad *et al.* (ATLAS Collboration), *"Study of Higgs boson pair production in the HH→bbγγ final state with 308 /fb of data collected at sqrt(s)=13 TeV and 13.6 TeV by the ATLAS experiment"*, Phys. Lett. B. 140280 (2026) https://doi.org/10.1016/j.physletb.2026.140280 2. A. Aad *et al.* (ATLAS Collaboration), *"Measurements of ZZ→llvv and ZZjj→llvvjj productions in pp collisions at sqrt(s)=13 TeV with the ATLAS detector"*, 2025, to be published in EPJC, CERN-EP-2025-243, https://arxiv.org/abs/2511.15569 3. G. Aad *et al.* (ATLAS Collaboration), *"Observation of electroweak production of two jets and a Z-boson pair with the ATLAS detector at the LHC"*, Nat. Phys. 19, 237–253 (2023). https://doi.org/10.1038/s41567-022-01757-y 4. A. Abulencia *et al.* (CDF Collaboration),*"Measurement of the top quark mass using template methods on dilepton events in p−pbar collisions at sqrt(s) = 1.96 TeV"*, Phys. Rev. D **73** 112006 (2006). 5. D. Acosta, *et al.* (CDF Collaboration), *"Search for radiative b-hadron decays in p-pbar collisions at sqrt(s) = 1.8 TeV"*, Phys. Rev. D **66**, 112002 (2002).
Three conference proceedings	1. K. Kordas, *et al., "Progress on the PICOSEC-Micromegas Detector Development: Towards a precise timing, radiation hard, large-scale particle detector with segmented readout", Nucl.Instrum.Meth.A* 958 (2020) 162877 (2020), https://doi.org/10.1016/j.nima.2019.162877 Proceedings, 15th Vienna Conference on Instrumentation (VCI2019): Vienna, Feb.18-22, 2019 2. S. Gkaitatzis, C. L. Sotiropoulou, P. Luciano, P. Giannetti and K. Kordas. *"A software demonstrator for cognitive image processing using the Associative Memory chip"* , "Modern Circuits and Systems Technologies (MOCAST), 2017 6th International Conference on", 4-6 May 2017, Thessaloniki DOI:10.1109/MOCAST.2017.7937613 http://inspirehep.net/record/1639114 http://ieeexplore.ieee.org/document/7937613/ 3. C.-L. Sotiropoulou, S. Gkaitatzis, A. Annovi, M. Beretta, P. Giannetti, K. Kordas, P. Luciano, S. Nikolaidis, . Petridou and G. Volpi. *"A Multi-Core FPGA-based 2D-Clustering Implementation for Real-Time Image Processing",* IEEE Transactions on Nuclear Science,. vol. 61, no.6, pp.3599-3606, Dec. 2014, doi: 10.1109/TNS.2014.2364183 http://ieeexplore.ieee.org/document/6949160/