# Theodoros Christoudias, Curriculum Vitæ

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PhD Physics, Imperial College London, UK	2005–2009
BSc Physics (1st Class Honours), Imperial College London, UK	2002–200
Professional Experience	
Associate Professor, Cyprus Institute	2021
• Earth System Modelling Group Leader, Climate and Atmosphere Research Center	
Steering Group Member, EMAC Model International Consortium	
Institute Principal Investigator, CERN CLOUD Experiment	2014 202
Assistant Professor, Cyprus Institute	2014–202
Associate Research Scientist, Cyprus Institute	2012–201
Computational Scientist, Cyprus Institute	2010–201
International Fellow, Fermilab, USA	2006–200
Fellowships & Awards	
MACLEAN Best Paper Award	202
CYI Innovation Award	201
Fermilab International Fellowship A.G. Leventis Foundation Grant	2006–200 200
A.G. Levenus Foundation Grant Imperial College London UROP	200
Feaching & Supervision	
PhD Pogramme Coordinator: Energy, Environment and Atmospheric Sciences	2025
Academic Committee (CyI principal academic governing body)	2025
ERASMUS Committee (Cyl Graduate School)	2019
Courses - Lecturer (10 ECTS): Atmospheric Modelling (2019–), Visualisation and Adva. (2018–2024), Computer Graphics and Data Exploration (2016), Data Structures (2	
Student Supervision: 7 PhD Students P. Kirikidis (2021–2024), A. Rey-Pommier, Cotutelle with Institut Pierre (IPSL), France (2020–2023), G. Georgiou (2016–2020), C. Xenofontos (2022–)  Part-time: G Ashiotis, co-supervised with M Nicolaou, CaSToRC (2019–), K. Sofokle McClintock (2024–)	-
2 MSc Students M. Moustras (2024), M. Satraki (2023)	
Schools & Workshops	
Schools & Workshops International HPC Summer School on Challenges in Computational Sciences ( <i>Mentor</i> )	
Schools & Workshops International HPC Summer School on Challenges in Computational Sciences ( <i>Mentor</i> ) HPC architectures and numerical methods (5 ECTS)	201
Schools & Workshops International HPC Summer School on Challenges in Computational Sciences ( <i>Mentor</i> ) HPC architectures and numerical methods (5 ECTS) Large-scale numerical computation (5 ECTS)	201 201
Schools & Workshops International HPC Summer School on Challenges in Computational Sciences ( <i>Mentor</i> ) HPC architectures and numerical methods (5 ECTS) Large-scale numerical computation (5 ECTS) High Performance Visualization for Large-Scale Scientific Data Analytics (10 ECTS)	201 201 201
Schools & Workshops International HPC Summer School on Challenges in Computational Sciences ( <i>Mentor</i> ) HPC architectures and numerical methods (5 ECTS) Large-scale numerical computation (5 ECTS)	201 201 201
Schools & Workshops International HPC Summer School on Challenges in Computational Sciences ( <i>Mentor</i> ) HPC architectures and numerical methods (5 ECTS) Large-scale numerical computation (5 ECTS) High Performance Visualization for Large-Scale Scientific Data Analytics (10 ECTS) Advanced Scientific Visualization (with NCSA Advanced Visualisation Lab) Service	201 201 201
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Schools & Workshops International HPC Summer School on Challenges in Computational Sciences (Mentor) HPC architectures and numerical methods (5 ECTS) Large-scale numerical computation (5 ECTS) High Performance Visualization for Large-Scale Scientific Data Analytics (10 ECTS) Advanced Scientific Visualization (with NCSA Advanced Visualisation Lab)  Service Expert Committees	201 201 201 201 201 202 202 202 201

French State "Investissements d'Avenir", National Natural Science Foundation of China (NSFC) / Hong Kong Research Grant Council (RGC) Joint Research Scheme, Hungarian National Research, Development and Innovation Office (NKFIH), University Research Board of the American University of Beirut, Science Fund of the Republic of Serbia (PROMIS and IDEAS programmes), European Commission Horizon 2020, Horizon Europe, National Science Centre Poland, University of Malta Research Excellence Fund, French National

## Research Agency (ANR)

# Peer Review & Editorial Boards

Atmospheric Chemistry and Physics (ACP), Geoscientific Model Development (GMD), Atmospheric Environment, Science of the Total Environment (STOTEN), Atmospheric Pollution Research, Aerosol and Air Quality Research, Environment International Journal, Atmosphere (Section Board Member 2020–2021, Advisory Board 2021–2023), Climate (Editorial Board Member 2018–2021), Scalable Computing: Practice and Experience (Special Issue Guest Editor), Remote Sensing Applications: Society and Environment (RSASE), Urban Science, Environmental Science & Technology, Journal of Environmental Radioactivity, Climate Dynamics, Computer Physics Communications, Solar Energy, Nature, Environmental Pollution, Earth and Space Science

Space Science	
Conference Programme Committees	
ISC High Performance	2021-2024
Data Management and Semantic Strucures for Cross-disciplinary Research, Cyprus	2018
e-Infrastructures for Excellent Science, Sofia, Bulgaria	2018
Intramural (Cyprus Institute)	
Tenders & Procurement ad hoc committees member	2017–
Tendering committee for new supercomputer (1.2M EUR)	
Technical evaluation committee for computer system tender (120K EUR)	
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Computational infrastructure for Teaming and ERA-Chair projects (550K EUR)      The Computational infrastructure for Teaming and ERA-Chair projects (550K EUR)      The Computational infrastructure for Teaming and ERA-Chair projects (550K EUR)      The Computational infrastructure for Teaming and ERA-Chair projects (550K EUR)      The Computational infrastructure for Teaming and ERA-Chair projects (550K EUR)      The Computational infrastructure for Teaming and ERA-Chair projects (550K EUR)      The Computational infrastructure for Teaming and ERA-Chair projects (550K EUR)      The Computational infrastructure for Teaming and ERA-Chair projects (550K EUR)      The Computational infrastructure for Teaming and ERA-Chair projects (550K EUR)      The Computational infrastructure for Teaming and ERA-Chair projects (550K EUR)      The Computational infrastructure for Teaming and ERA-Chair projects (550K EUR)      The Computational infrastructure for Teaming and ERA-Chair projects (550K EUR)      The Computational infrastructure for Teaming and ERA-Chair projects (550K EUR)      The Computational infrastructure for Teaming and ERA-Chair projects (550K EUR)      The Computational infrastructure for Teaming and ERA-Chair projects (550K EUR)      The Computational infrastructure for Teaming and ERA-Chair projects (550K EUR)      The Computational infrastructure for Teaming and ERA-Chair projects (550K EUR)      The Computational infrastructure for Teaming and ERA-Chair projects (550K EUR)      The Computational infrastructure for Teaming and ERA-Chair projects (550K EUR)      The Computational infrastructure for Teaming and ERA-Chair projects (550K EUR)      The Computational infrastructure for Teaming and ERA-Chair projects (550K EUR)      The Computational infrastructure for Teaming and ERA-Chair projects (550K EUR)      The Computational infrastructure for Teaming and ERA-Chair projects (550K EUR)      The Computational infrastructure for Teaming and ERA-Chair projects (550K EUR)      The Computational infrastruct	
HPC and Data Storage infrastructure for EMME-CARE Teaming project (500K EUR)	
Extension of public liability and professional indemnity insurance	
High Performance Computing Facility Scientific Committee	2016–2019
Outreach Committee (Publications, Web, Science Fair, Solar Car Race)	2016–2020
Colloquium Committee Chair, Organised 37 colloquium talks by prominent speakers	2014–2016
Research Grants	
PV-Dust, RIF Commercial Proof of Concept - Energy	2025-2026
Correlation of Dust Models with PV Energy Production	
<b>Dust-DN</b> , Marie Skłodowska-Curie Actions	2024–2028
Dust Doctoral Network	
NERO COST Action Management Committee Member	2023-2027
European Network on Extreme Fire Behaviour	
CLOUD-DOC, Marie Skłodowska-Curie Actions	2022-2026
CLOUD Doctoral Network	
SIRIUS, LIFE Environmental Governance and Information	2022-2025
A System for Integrated EnviRonmental Information in Urban areaS	
ACCEPT, Norway Grants, Work Package Leader (Modelling)	2020-2024
Assessment of Climate Change Effect on Pollution Transport	
QEERI, Qatar Environment and Energy Research Institute	2020-2023
Atmospheric Dispersion of Pollutants	
VECTOR, Copernicus Climate Change Service (C3S) ECMWF	2020-2021
Vector Climate Threat Online Resource	
META-SAT, European Space Agency (ESA) PECS, Scientific Expert	2020-2022
Modeling of Emissions, Trends and Air quality, using Satellite measurements	
GAIA, Cyprus Research & Innovation Foundation (RIF) PRE-SEED	2019-2023
Geospatial Artificial Intelligence Analytics	
NI4OS, EU Horizon 2020, Climate Scientific Community Leader	2019-2023
National Initiatives for Open Science in Europe	
AQ-SERVE, RIF Integrated, Work Package Leader (Air Quality Modelling)	2019-2021
Air Quality Services for a cleaner air in Cyprus	
Vi-SEEM, EU Horizon 2020, Climate Scientific Community Leader	2017-2019
Virtual Research Environment in Southeast Europe and the Eastern Mediterranean	
<b>DEEP</b> , EU FP7, Climate Modelling Application Co-Design	2011-2015
Dynamical Exascale Entry Platform	
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#### Peer-reviewed Journal Publications

- 1. Nirvan Bhattacharyya et al. "Isoprene Aerosol Growth in the Upper Troposphere: Application of the Diagonal Volatility Basis Set to CLOUD Chamber Measurements". In: *ACS ES&T Air* (2025).
- **2.** Efstratios Bourtsoukidis et al. "Environmental Change Is Reshaping the Temperature Sensitivity of Sesquiterpene Emissions and Their Atmospheric Impacts". In: *Global change biology* 31.6 (2025), e70258.
- **3.** Anthony Rey-Pommier et al. "Global gridded NO x emissions using TROPOMI observations". In: *Earth System Science Data* 17.7 (2025), pp. 3329–3351.
- 4. Anthony Rey-Pommier et al. "Mapping NO x emissions in Cyprus using TROPOMI observations: evaluation of the flux-divergence scheme using multiple parameter sets". In: *Environmental Science and Pollution Research* (2025), pp. 1–20.
- **5.** Douglas M Russell et al. "Isoprene chemistry under upper-tropospheric conditions". In: *Nature Communications* 16.1 (2025), p. 8555.
- **6.** Christos Xenofontos et al. "Global impact of anthropogenic NH3 emissions on upper tropospheric aerosol formation". In: *Proceedings of the National Academy of Sciences* 122.44 (2025), e2506658122.
- 7. Theodoros Christoudias et al. "Earth's atmosphere protects the biosphere from nearby supernovae". In: *Communications Earth & Environment* 5.1 (2024), p. 326.
- **8.** Pantelis Kiriakidis et al. "Projected wind and solar energy potential in the eastern Mediterranean and Middle East in 2050". In: *Science of The Total Environment* 927 (2024), p. 172120.
- 9. Modou Niang et al. "Radioactivity of the atmospheric aerosols detected by CTBTO stations in Africa following the accident at the Fukushima Daiichi nuclear power plant". In: *Journal of Environmental Radioactivity* 276 (2024), p. 107439.
- **10.** Jiali Shen et al. "New particle formation from isoprene under upper-tropospheric conditions". In: *Nature* 636.8041 (2024), pp. 115–123.
- **11.** Christos Xenofontos et al. "The impact of ammonia on particle formation in the Asian Tropopause Aerosol Layer". In: *npj Climate and Atmospheric Science* 7.1 (2024), p. 215.
- **12.** Giannis Ashiotis et al. "Toward Explainable and Transferable Deep Downscaling of Atmospheric Pollutants". In: *Geoscience and Remote Sensing Letters* 20 (2023), p. 1002505.
- **13.** Maria Christou et al. "Entomological surveillance and spatiotemporal risk assessment of sand fly-borne diseases in Cyprus". In: *Current Research in Parasitology & Vector-Borne Diseases* 4 (2023), p. 100152. ISSN: 2667-114X.
- **14.** Pantelis Kiriakidis et al. "The impact of using assimilated Aeolus wind data on regional WRF-Chem dust simulations". In: *Atmospheric Chemistry and Physics* 23.7 (2023), pp. 4391–4417.
- **15.** Jasper Kirkby et al. "Atmospheric new particle formation from the CERN CLOUD experiment". In: *Nature Geoscience* 16.11 (2023), pp. 948–957.
- **16.** Seyed Omid Nabavi et al. "Spatiotemporal variation of radionuclide dispersion from nuclear power plant accidents using FLEXPART mini-ensemble modeling". In: *Atmospheric Chemistry and Physics* 23.13 (2023), pp. 7719–7739.
- 17. Niki Paisi et al. "Modeling of carbonaceous aerosols for air pollution health impact studies in Europe". In: *Air Quality, Atmosphere & Health* (2023), pp. 1–14.
- **18.** Anthony Rey-Pommier et al. "Detecting nitrogen oxide emissions in Qatar and quantifying emission factors of gas-fired power plants—a 4-year study". In: *Atmospheric Chemistry and Physics* 23.21 (2023), pp. 13565–13583.
- 19. G. K. Georgiou et al. "Evaluation of WRF-Chem model (v3.9.1.1) real-time air quality forecasts over the Eastern Mediterranean". In: *Geoscientific Model Development* 15.10 (2022), pp. 4129–4146. DOI: 10.5194/gmd-15-4129-2022.
- 20. Alexandra Monteiro et al. "Multi-sectoral impact assessment of an extreme African dust episode in the Eastern Mediterranean in March 2018". In: *Science of The Total Environment* (2022), p. 156861. ISSN: 0048-9697. DOI: https://doi.org/10.1016/j.scitotenv.2022.156861.
- 21. A. Rey-Pommier et al. "Quantifying  $NO_x$  emissions in Egypt using TROPOMI observations". In: *Atmospheric Chemistry and Physics* 22.17 (2022), pp. 11505–11527. DOI: 10.5194/acp-22-11505-2022.
- **22.** Anwar Al Shami et al. "Updated national emission inventory and comparison with the Emissions Database for Global Atmospheric Research (EDGAR): case of Lebanon". In: *Environmental Science and Pollution Research* (2022), pp. 1–13.

- **23.** Kyriacos Sophocleous and Theodoros Christoudias. "Reduced-Precision Chemical Kinetics in Atmospheric Models". In: *Atmosphere* 13.9 (2022). ISSN: 2073-4433. DOI: 10.3390/atmos13091418.
- **24.** Mingyi Wang et al. "Synergistic HNO3–H2SO4–NH3 upper tropospheric particle formation". In: *Nature* 605.7910 (2022), pp. 483–489. DOI: 10.1038/s41586-022-04605-4.
- 25. George K Georgiou et al. "Air quality modelling over the Eastern Mediterranean: Seasonal sensitivity to anthropogenic emissions". In: *Atmospheric Environment* 222 (2020), p. 117119. DOI: 10.1016/j.atmosenv.2019.117119.
- **26.** Vassiliki Kotroni et al. "DISARM Early Warning System for Wildfires in the Eastern Mediterranean". In: *Sustainability* 12.16 (2020), p. 6670.
- **27**. Michail Alvanos and Theodoros Christoudias. "Accelerating Atmospheric Chemical Kinetics for Climate Simulations". In: *IEEE Transactions on Parallel and Distributed Systems* (2019). DOI: 10.1109/TPDS.2019.2918798.
- **28.** Jonilda Kushta et al. "Evaluation of EU air quality standards through modeling and the FAIRMODE benchmarking methodology". In: *Air Quality, Atmosphere & Health* 12.1 (2019), pp. 73–86.
- **29.** Alexander De Meij, George Zittis, and Theodoros Christoudias. "On the uncertainties introduced by land cover data in high-resolution regional simulations". In: *Meteorology and Atmospheric Physics* (2018), pp. 1–11.
- **30.** George K Georgiou et al. "Air quality modelling in the summer over the eastern Mediterranean using WRF-Chem: chemistry and aerosol mechanism intercomparison". In: *Atmospheric Chemistry and Physics* 18.3 (2018), pp. 1555–1571. DOI: 10.5194/acp-18-1555-2018.
- 31. M Alvanos and T Christoudias. "GPU-accelerated atmospheric chemical kinetics in the ECHAM/MESSy (EMAC) Earth system model (version 2.52)". In: *Geoscientific Model Development* 10.10 (2017), p. 3679. DOI: 10.5194/gmd-10-3679-2017.
- **32.** M Alvanos and T Christoudias. "MEDINA: MECCA Development in Accelerators–KPP Fortran to CUDA source-to-source Pre-processor". In: *Journal of Open Research Software* 5.1 (2017).
- **33.** J Kushta et al. "Modelling study of the atmospheric composition over Cyprus". In: *Atmospheric Pollution Research* (2017).
- 34. Sara Bacer, T Christoudias, and Andrea Pozzer. "Projection of North Atlantic Oscillation and its effect on tracer transport". In: *Atmospheric Chemistry and Physics* 16.24 (2016), pp. 15581–15592. DOI: 10.5194/acp-16-15581-2016.
- 35. Michalis Christou et al. "Earth system modelling on system-level heterogeneous architectures: EMAC (version 2.42) on the Dynamical Exascale Entry Platform (DEEP)". In: *Geoscientific Model Development* 9.9 (2016), p. 3483. DOI: 10.5194/gmd-9-3483-2016.
- **36.** NI Kristiansen et al. "Evaluation of observed and modelled aerosol lifetimes using radioactive tracers of opportunity and an ensemble of 19 global models". In: *Atmospheric Chemistry and Physics* 16.5 (2016), pp. 3525–3561. DOI: 10.5194/acp-16-3525-2016.
- 37. T Christoudias, Y Proestos, and J Lelieveld. "Atmospheric Dispersion of Radioactivity from Nuclear Power Plant Accidents: Global Assessment and Case Study for the Eastern Mediterranean and Middle East". In: *Energies* 7.12 (2014), pp. 8338–8354.
- **38.** T Christoudias, Y Proestos, and J Lelieveld. "Global risk from the atmospheric dispersion of radionuclides by nuclear power plant accidents in the coming decades". In: *Atmospheric Chemistry and Physics* 14.9 (2014), pp. 4607–4616. DOI: 10.5194/acp-14-4607-2014.
- **39.** T Christoudias and J Lelieveld. "Modelling the global atmospheric transport and deposition of radionuclides from the Fukushima Dai-ichi nuclear accident". In: *Atmospheric Chemistry and Physics* 13.3 (2013), pp. 1425–1438. DOI: 10.5194/acp-13-1425-2013.
- **40.** T Christoudias, A Pozzer, and J Lelieveld. "Influence of the North Atlantic Oscillation on air pollution transport". In: *Atmospheric Chemistry and Physics* 12.2 (2012), pp. 869–877. DOI: 10.5194/acp-12-869-2012.
- 41. VM Abazov et al. "A measurement of the ratio of inclusive cross sections  $\sigma(p\bar{p}\to Z+bjet)/\sigma(p\bar{p}\to Z+jet)$  at  $\sqrt{s}$ =1.96 TeV". In: *Phys. Rev.* D83 (2011), p. 031105. DOI: 10.1103/PhysRevD.83.031105. arXiv: 1010.6203 [hep-ex].
- **42.** VM Abazov et al. "Azimuthal decorrelations and multiple parton interactions in  $\gamma+2$  jet and  $\gamma+3$  jet events in  $p\bar{p}$  collisions at  $\sqrt{s}=1.96$  TeV". In: *Phys. Rev.* D83 (2011), p. 052008. DOI: 10.1103/PhysRevD.83.052008. arXiv: 1101.1509 [hep-ex].

- **43.** VM Abazov et al. "Determination of the width of the top quark". In: *Phys. Rev. Lett.* 106 (2011), p. 022001. DOI: 10.1103/PhysRevLett.106.022001. arXiv: 1009.5686 [hep-ex].
- 44. VM Abazov et al. "High mass exclusive diffractive dijet production in  $p\bar{p}$  collisions at  $\sqrt{s}=1.96$  TeV". In: *Phys. Lett.* B705 (2011), pp. 193–199. DOI: 10.1016/j.physletb.2011.10.013. arXiv: 1009.2444 [hep-ex].
- 45. VM Abazov et al. "Measurement of color flow in  $t\bar{t}$  events from  $p\bar{p}$  collisions at  $\sqrt{s}$ =1.96 TeV". In: *Phys. Rev.* D83 (2011), p. 092002. DOI: 10.1103/PhysRevD.83.092002. arXiv: 1101.0648 [hep-ex].
- 46. VM Abazov et al. "Measurement of spin correlation in  $t\bar{t}$  production using dilepton final states". In: *Phys. Lett.* B702 (2011), pp. 16–23. DOI: 10.1016/j.physletb.2011.05.077. arXiv: 1103.1871 [hep-ex].
- 47. VM Abazov et al. "Measurement of the  $WZ \to \ell\nu\ell\ell$  cross section and limits on anomalous triple gauge couplings in  $p\bar{p}$  collisions at  $\sqrt{s}=1.96$  TeV". In: *Phys. Lett.* B695 (2011), pp. 67–73. DOI: 10.1016/j.physletb.2010.10.047. arXiv: 1006.0761 [hep-ex].
- 48. VM Abazov et al. "Measurement of the top quark pair production cross section in the lepton+jets channel in proton-antiproton collisions at  $\sqrt{s}$ =1.96 TeV". In: *Phys. Rev.* D84 (2011), p. 012008. DOI: 10.1103/PhysRevD.84.012008. arXiv: 1101.0124 [hep-ex].
- **49.** VM Abazov et al. "Measurement of the W boson helicity in top quark decays using 5.4 fb<sup>-1</sup> of  $p\bar{p}$  collision data". In: *Phys. Rev.* D83 (2011), p. 032009. DOI: 10.1103/PhysRevD.83.032009. arXiv: 1011.6549 [hep-ex].
- 50. VM Abazov et al. "Precise study of the  $Z/\gamma^*$  boson transverse momentum distribution in  $p\bar{p}$  collisions using a novel technique". In: *Phys. Rev. Lett.* 106 (2011), p. 122001. DOI: 10.1103/PhysRevLett.106.122001. arXiv: 1010.0262 [hep-ex].
- 51. VM Abazov et al. "Search for  $W' \to tb$  resonances with left- and right-handed couplings to fermions". In: *Phys. Lett.* B699 (2011), pp. 145–150. DOI: 10.1016/j.physletb.2011.03.066. arXiv: 1101.0806 [hep-ex].
- 52. VM Abazov et al. "Search for WH associated production in 5.3 fb<sup>-1</sup> of  $p\bar{p}$  collisions at the Fermilab Tevatron". In: *Phys. Lett.* B698 (2011), pp. 6–13. DOI: 10.1016/j.physletb.2011.02.036. arXiv: 1012.0874 [hep-ex].
- 53. VM Abazov et al. "Search for a heavy neutral gauge boson in the dielectron channel with 5.4 fb<sup>-1</sup> of  $p\bar{p}$  collisions at  $\sqrt(s) = 1.96$  TeV". In: *Phys. Lett.* B695 (2011), pp. 88–94. DOI: 10.1016/j.physletb.2010.10.059. arXiv: 1008.2023 [hep-ex].
- 54. VM Abazov et al. "Search for flavor changing neutral currents in decays of top quarks". In: *Phys. Lett.* B701 (2011), pp. 313–320. DOI: 10.1016/j.physletb.2011.06.014. arXiv: 1103.4574 [hep-ex].
- 55. VM Abazov et al. "Search for neutral Higgs bosons in the multi-b-jet topology in 5.2fb $^{-1}$  of  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV". In: *Phys. Lett.* B698 (2011), pp. 97–104. DOI: 10.1016/j.physletb.2011.02.062. arXiv: 1011.1931 [hep-ex].
- 56. VM Abazov et al. "Search for pair production of the scalar top quark in the electron+muon final state". In: *Phys. Lett.* B696 (2011), pp. 321–327. DOI: 10.1016/j.physletb.2010.12.052. arXiv: 1009.5950 [hep-ex].
- 57. VM Abazov et al. "Search for resonant WW and WZ production in  $p\bar{p}$  collisions at  $\sqrt{s}=1.96$  TeV". In: *Phys. Rev. Lett.* 107 (2011), p. 011801. DOI: 10.1103/PhysRevLett.107.011801. arXiv: 1011.6278 [hep-ex].
- 58. VM Abazov et al. "Search for single vector-like quarks in  $p\bar{p}$  collisions at  $\sqrt(s) = 1.96$  TeV". In: *Phys. Rev. Lett.* 106 (2011), p. 081801. DOI: 10.1103/PhysRevLett.106.081801. arXiv: 1010.1466 [hep-ex].
- 59. VM Abazov et al. "Search for the Standard Model Higgs Boson in the  $H \to WW \to \ell \nu q' \bar{q}$  Decay Channel". In: *Phys. Rev. Lett.* 106 (2011), p. 171802. DOI: 10.1103/PhysRevLett.106.171802. arXiv: 1101.6079 [hep-ex].
- 60. T Aaltonen et al. "Combination of Tevatron searches for the standard model Higgs boson in the W+W-decay mode". In: *Phys. Rev. Lett.* 104 (2010), p. 061802. DOI: 10.1103/PhysRevLett.104.061802. arXiv: 1001.4162 [hep-ex].
- **61.** T Aaltonen et al. "Combined Tevatron upper limit on  $gg \to H \to W^+W^-$  and constraints on the Higgs boson mass in fourth-generation fermion models". In: *Phys. Rev.* D82 (2010), p. 011102. DOI: 10.1103/PhysRevD.82.011102. arXiv: 1005.3216 [hep-ex].
- **62.** VM Abazov et al. "b-Jet Identification in the D0 Experiment". In: *Nucl. Instrum. Meth.* A620 (2010), pp. 490–517. DOI: 10.1016/j.nima.2010.03.118. arXiv: 1002.4224 [hep-ex].

- 63. VM Abazov et al. "Dependence of the  $t\bar{t}$  production cross section on the transverse momentum of the top quark". In: *Phys. Lett.* B693 (2010), pp. 515–521. DOI: 10.1016/j.physletb.2010.09.011. arXiv: 1001.1900 [hep-ex].
- 64. VM Abazov et al. "Double parton interactions in  $\gamma+3$  jet events in  $pp^-$  bar collisions  $\sqrt{s}=1.96$  TeV". In: *Phys. Rev.* D81 (2010), p. 052012. DOI: 10.1103/PhysRevD.81.052012. arXiv: 0912.5104 [hep-ex].
- 65. VM Abazov et al. "Evidence for an anomalous like-sign dimuon charge asymmetry". In: *Phys. Rev. Lett.* 105 (2010), p. 081801. DOI: 10.1103/PhysRevLett.105.081801. arXiv: 1007.0395 [hep-ex].
- 66. VM Abazov et al. "Evidence for an anomalous like-sign dimuon charge asymmetry". In: *Phys. Rev.* D82 (2010), p. 032001. DOI: 10.1103/PhysRevD.82.032001. arXiv: 1005.2757 [hep-ex].
- 67. VM Abazov et al. "Measurement of  $t\bar{t}$  production in the tau + jets topology using  $p\bar{p}$  collisions at  $\sqrt{s}$  = 1.96 TeV". In: *Phys. Rev.* D82 (2010), p. 071102. DOI: 10.1103/PhysRevD.82.071102. arXiv: 1008.4284 [hep-ex].
- 68. VM Abazov et al. "Measurement of direct photon pair production cross sections in  $p\bar{p}$  collisions at  $\sqrt{s}=1.96$  TeV". In: *Phys. Lett.* B690 (2010), pp. 108–117. DOI: 10.1016/j.physletb.2010.05.017. arXiv: 1002.4917 [hep-ex].
- 69. VM Abazov et al. "Measurement of the  $t\bar{t}$  cross section using high-multiplicity jet events". In: *Phys. Rev.* D82 (2010), p. 032002. DOI: 10.1103/PhysRevD.82.032002. arXiv: 0911.4286 [hep-ex].
- 70. VM Abazov et al. "Measurement of the dijet invariant mass cross section in  $p\bar{p}$  collisions at  $\sqrt{s}=1.96$  TeV". In: *Phys. Lett.* B693 (2010), pp. 531–538. DOI: 10.1016/j.physletb.2010.09.013. arXiv: 1002.4594 [hep-ex].
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#### **Invited Talks & Seminars**

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"Case studies on climate data use in the Mediterranean", Copernicus C3S Climate challenges and data-informed solutions in the Mediterranean Workshop	2021
"Datasets and applications on vector-borne diseases and climate change", Copernicus and Public Health Workshop	2021
"The Mediterranean/Marine Atmosphere", CLOUD-MOTION virtual event	2020
"Air Pollution", World Environment Day, United Nations, Nicosia, Cyprus	2019
"Summary of scientific projections of climate change in the Eastern Mediterranean", Regional Environment and Security Workshop, House for Cooperation, Nicosia, Cyprus	2018
"Earth System Model Post-processing & Visualisation", Institute of Physics, Serbia	2017
"Atmospheric Forecasts", Cyprus Ministry of Energy, Commerce, Industry and Tourism	2017
"Climate Change: Physical Science, Impacts, Mitigation & Adaptation", Climate-KIC Journey, CUT, Limassol, Cyprus	2017
"Accelerating Earth System Models with GPUs", Institute for Advanced Simulation (IAS), Jülich Supercomputing Centre (JSC), Germany	2017
"HPC and Big Data: The Climate Scientific Community", PRACE 2017 Spring School, Nicosia, Cyprus	2017
"Hardware acceleration for the EMAC model", German Aerospace Center (DLR), Munich, Germany	2016
"Global risk model for the atmospheric dispersion of radionuclides by nuclear power plant accidents", 1st	2015
International Conference on Nuclear Risk (NURIS), International Nuclear Risk Assessment Group (INRAG), Vienna, Austria	
"Atmospheric Risk from Nuclear Power Plant Accidents: Global Assessment, Eastern Mediterranean, Akkuyu", European Parliament Members Visit to Cyprus, House for Cooperation, Nicosia, Cyprus	2015
"Nuclear Power Plant Atmospheric Risks", Friends of the Earth NGO, Cyprus	2014
"Insights from Modeling the Global Atmospheric Transport of Radionuclides", International Workshop on Atmospheric and Ocean Modeling, American University Beirut (AUB), Lebanon	2014
"Visualisation in Climate Research", National Center for Supercomputing Applications (NCSA), University of	2013
Illinois at Urbana-Champaign (UIUC), USA	
International Media Coverage	
"Changes in Present and Future Climate Conditions and Air Quality", Eastern Mediterranean Affairs Magazine Issue 3: Climate Change and Sustainability in the Eastern Mediterranean	2022
"Akkuyu NPP Atmospheric Disperion Risk", Ta Nea, Greece, 14 August 2018	2018
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# Outreach

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