

Curriculum Vitae
Dr. Panos Christakoglou
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EDUCATION

2003 – 2007: PhD in nuclear and elementary particle physics
National and Kapodistrian University of Athens, Greece
“Study of charge correlations in heavy-ion interactions at NA49-SPS and ALICE-LHC”

2000 – 2003: MSc in nuclear and elementary particle physics
National and Kapodistrian University of Athens, Greece
“Study of resonances in pp collisions at NS49-SPS”

1999 – 2001: Diploma in computing applications and programming
Public Institute for Professional Preparation
Athens, Greece

1995 – 2000: BSc in physics
National and Kapodistrian University of Athens, Greece

PROFESSIONAL ACTIVITY

2024 – TODAY: Associate Professor
Maastricht University

2021 – 2024: Guest Professor
TU Delft, the Netherlands

2016 – 2024: Guest Professor
Utrecht University, the Netherlands

2010 – TODAY: Senior scientist
Nikhef, Amsterdam, the Netherlands

2007 – 2010: Postdoctoral researcher
Utrecht University, the Netherlands

2005 – 2007: Marie Curie research fellow
CERN, Switzerland

TEACHING ACTIVITY

2022 – 2024: “Particle Physics II - QCD”
MSc course
University of Amsterdam (GRAPPA track), the Netherlands

2021 – 2024: “Introduction to elementary particle physics”
1st year BSc course
TU Delft, the Netherlands

2017 – 2021: “Subatomic Physics”
3rd year BSc course
Utrecht University, the Netherlands

2015 – 2021: “Particle Physics II”
MSc course
Utrecht University, University of Amsterdam & Vrije Universiteit Amsterdam, the Netherlands

2006 – 2007: “GRID analysis framework”

2005 – 2007: Courses for members of the ALICE Collaboration
CERN, Switzerland
“The offline framework of ALICE”
Courses for members of the ALICE Collaboration
CERN, Switzerland

RESEARCH ACTIVITY

2022 – TODAY: Member of the Dutch scientific consortium (funded NWO proposal) that studies the behavior of nuclear matter under the most extreme conditions, making the connection between heavy ion physics, gravitational wave physics and astronomy

2021 – TODAY: Leading the physics studies for the upgrade of the ALICE detector (ALICE3) for run 5 at the LHC, focusing on charm and beauty measurements

2014 – 2020: Involved in the upgrade of the Inner Tracking System of ALICE for run 3-4 at the LHC

- Physics simulations
- Detector Control System

2010 – TODAY: Leading the ALICE/LHC studies in the topics:

- Chiral magnetic effect
- Charge dependent correlations
- Event-by-event physics
- Anisotropic flow measurements

2007 – 2010: Led the “First Physics Program” of ALICE on baryon transport mechanisms studies

2005 – 2007:

- Main developer of the analysis framework on the GRID for ALICE at the LHC.
- Member of the core developing team of ALICE’s reconstruction and offline framework.

1998 – 2007: Member of the NA49 Experiment at the SPS (CERN).

- Led the first measurements of charge dependent correlations at SPS energies
- Studies of resonance production in pp at SPS energies

PUBLICATIONS

Citation summary results	Citeable papers	Published only
Total number of papers analyzed:	474	436
Total number of citations:	52,533	51,980
Average citations per paper:	110,8	119,2
Breakdown of papers by citations:		
Renowned papers (500+)	15	15
Famous papers (250-499)	38	38
Very well-known papers (100-249)	90	88
Well-known papers (50-99)	107	107
Known papers (10-49)	166	154
Less known papers (1-9)	47	32
Unknown papers (0)	11	2
h_{HEP} index	121	121

Selected list of publications

- “Probing the magnetic field strength dependence of the Chiral Magnetic Effect”, submitted to EPJC [arXiv:2308.02361](https://arxiv.org/abs/2308.02361) [nucl-th]
- “Systematic study of the chiral magnetic effect with the AVFD model at LHC energies”, [Eur.Phys.J.C 81 \(2021\) 8, 717](https://doi.org/10.1051/epjc/2021/8/717)
- “Constraining the Chiral Magnetic Effect with charge-dependent azimuthal correlations in Pb-Pb collisions at $\sqrt{s_{\text{NN}}} = 2.76$ and 5.02 TeV”, [JHEP 09 \(2020\) 160](https://doi.org/10.1007/JHEP09(2020)160)
- “Constraining the magnitude of the Chiral Magnetic Effect with Event Shape Engineering in Pb-Pb collisions at $\sqrt{s_{\text{NN}}} = 2.76$ TeV”, [Phys. Lett. B 777 \(2018\) 151](https://doi.org/10.1007/PLB777(2018)151)
- “Charge separation relative to the reaction plane in Pb-Pb collisions at $\sqrt{s_{\text{NN}}} = 2.76$ TeV”, [Phys.Rev.Lett. 110 \(2013\)](https://doi.org/10.1103/PhysRevLett.110.202301)

- "Non-linear flow modes of identified particles in Pb-Pb collisions at $\sqrt{s_{\text{NN}}} = 5.02$ TeV", [JHEP06 \(2020\) 147](#)
- "Investigations of Anisotropic Flow Using Multiparticle Azimuthal Correlations in pp, p-Pb, Xe-Xe, and Pb-Pb Collisions at the LHC", [Phys.Rev.Lett. 123 \(2019\) 14, 142301](#)
- "Higher harmonic flow coefficients of identified hadrons in Pb-Pb collisions at $\sqrt{s_{\text{NN}}} = 2.76$ TeV", [JHEP 09 \(2016\) 164](#)
- "Anisotropic flow of charged particles in Pb-Pb collisions at $\sqrt{s_{\text{NN}}} = 5.02$ TeV", [Phys.Rev.Lett. 116 \(2016\)](#)
- "Event shape engineering for inclusive spectra and elliptic flow in Pb-Pb collisions at $s_{\text{NN}} = 2.76$ TeV", [Phys.Rev. C93 \(2016\)](#)
- "Experimental overview of collective flow with identified particles at RHIC and the LHC", [EPJ Web Conf. 90 \(2015\) 08004](#)
- "Multiparticle azimuthal correlations in p-Pb and Pb-Pb collisions at the CERN Large Hadron Collider", [Phys.Rev. C90 \(2014\)](#)
- "Elliptic flow of identified hadrons in Pb-Pb collisions at $s_{\text{NN}} = 2.76$ TeV", [JHEP 1506 \(2015\) 190](#)
- "Azimuthally-differential pion femtoscopy relative to the third harmonic event plane in Pb-Pb collisions at $\sqrt{s_{\text{NN}}} = 2.76$ TeV", [Phys. Lett. B 785 \(2018\) 320](#)
- "Anomalous evolution of the near-side jet peak shape in Pb-Pb collisions at $\sqrt{s_{\text{NN}}} = 2.76$ TeV", [Phys. Rev. Lett. 119 \(2017\), 102301](#)
- "Multiplicity and transverse momentum evolution of charge-dependent correlations in pp, p-Pb, and Pb-Pb collisions at the LHC", [Eur.Phys.J. C76 \(2016\)](#)
- "Event-by-event mean pT fluctuations in pp and Pb-Pb collisions at the LHC", [Eur.Phys.J. C74 \(2014\)](#)
- "Charge correlations using the balance function in Pb-Pb collisions at $s_{\text{NN}} = 2.76$ TeV", [Phys.Lett. B723 \(2013\) 267](#)
- "Net-Charge Fluctuations in Pb-Pb collisions at $s_{\text{NN}} = 2.76$ TeV", [Phys.Rev.Lett. 110 \(2013\)](#)
- "Technical Design Report for the Upgrade of the ALICE Inner Tracking System", [J.Phys. G41 \(2014\) 087002](#)
- "Performance of the ALICE Experiment at the CERN LHC", [Int.J.Mod.Phys. A29 \(2014\) 1430044](#)
- "Overview of results from ALICE at the CERN LHC", [EPJ Web Conf. 70 \(2014\) 00023](#)
- "QCD and Strongly Coupled Gauge Theories: Challenges and Perspectives", [Eur.Phys.J. C74 \(2014\)](#)
- "Results on angular correlations with ALICE", [J.Phys.Conf.Ser. 509 \(2014\) 012024](#)
- "Mid-rapidity anti-baryon to baryon ratios in pp collisions at $\sqrt{s} = 0.9, 2.76$ and 7 TeV measured by ALICE", [Eur.Phys.J. C73 \(2013\) 2496](#)
- "Midrapidity antiproton-to-proton ratio in pp collisions at $s = 0.9$ and 7 TeV measured by the ALICE experiment", [Phys.Rev.Lett. 105 \(2010\) 072002](#)

PRESENTATIONS – INVITED TALKS

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| 2022 | <ul style="list-style-type: none"> - "Heavy ion physics", colloquium speaker at Rijksuniversiteit Groningen, December 2022, Groningen, the Netherlands - "Experimental overview on searches for early stage E/M fields and novel QCD phenomena", invited talk at the "Zimanyi winter school on heavy-ion physics", December 2020, Budapest, Hungary - "Searches for early stage E/M fields and novel QCD phenomena at the LHC", invited speaker at the "Chirality, Vorticity and magnetic fields in heavy ion collisions" workshop, December 2021, UCLA, USA - Experimental overview on searches for early stage E/M fields and novel QCD phenomena", invited talk at the "The 28th International Nuclear Physics Conference", September 2021, Cape Town, South Africa - "Studying primordial matter in the laboratory latest results and future perspectives", colloquium speaker at Fundan University, June 2022, Shanghai, China (online) |
| 2021 | <ul style="list-style-type: none"> - "Searches for chiral anomalies with ALICE", invited talk at the "Zimanyi winter school on heavy-ion physics", December 2020, Budapest, Hungary - "Searches for chiral anomalies with ALICE", invited speaker at the "The 6th International conference on chirality, vorticity and magnetic field in heavy ion collisions", November 2021, Stonybrook, USA |

- "Studying primordial matter in the laboratory", invited speaker at the Padma University, September 2021, Bangladesh
- "Overview of heavy ion experiment results and perspectives", invited speaker at the "XIVth Quark Confinement and the Hadron Spectrum conference", August 2021, online edition.
- 2020
 - "Studies of novel QCD phenomena in heavy-ion collisions", invited talk at the "Zimanyi winter school on heavy-ion physics", December 2020, Budapest, Hungary
 - "Experimental overview of chiral anomalies", invited speaker at the "Polarisation measurements in ee, ep, pp and heavy-ions collisions" workshop, December 2020, Paris, France
 - "Looking for novel QCD phenomena using the strongest magnetic field in nature", Colloquium at University of Houston, to be given in November 2020, Houston, USA
- 2019
 - "A brief review of collective effects at the LHC: lessons and puzzles", invited talk at the "Zimanyi winter school on heavy-ion physics", December 2019, Budapest, Hungary
 - "From large to small systems: collective and novel QCD effects", invited speaker at the "New developments in hydrodynamics and its application in heavy-ion collisions", workshop, October 2019, Shanghai, China
 - "The hottest (QCD) matter on earth as studied in the laboratory", Colloquium at the Niels Bohr Institute, October 2019, Copenhagen, Denmark
- 2018
 - "Anisotropic flow studies at the LHC: a tool to characterize the QGP", invited talk at the "Zimanyi winter school on heavy-ion physics", December 2018, Budapest, Hungary
 - "Probing primordial matter in the laboratory with heavy-ion collisions", Invited Utrecht University seminar, March 2018, Utrecht, The Netherlands
- 2017
 - "Anisotropic flow studies of identified particles with ALICE: a tool to probe different stages of a heavy-ion collision", Invited EP-LHC CERN seminar, January 2017, CERN, Switzerland
 - "Collective effects in small systems: an experimental overview", Invited speaker at the 3rd Resonances Workshop, October 2017, Bergamo, Italy
 - "Probing primordial matter in the laboratory with heavy-ion collisions: status and prospects", invited NNV seminar, November 2017, Lunteren, The Netherlands
- 2016
 - "Experimental overview of collective flow with identified particles at RHIC and LHC", invited talk at the "XIIIth Quark Confinement and the Hadron Spectrum", August 2016, Thessaloniki, Greece
 - "Azimuthal correlations with identified particles at RHIC and LHC", invited talk at the "Zimanyi winter school on heavy-ion physics", December 2016, Budapest, Hungary
- 2015
 - "Multiplicity and transverse momentum dependence of electric charge balance functions", invited talk at "Quark Matter 2015", October 2015, Kobe, Japan
- 2014
 - "What have we learned from angular correlation analyses in p-Pb collisions?", invited talk at the Bose Institute for the "International conference on matter under extreme conditions: there and now", January 2014, Kolkata, India
 - "Correlations and fluctuations analyses in ALICE", ALICE-India meeting seminar, January 2014, Kolkata, India
 - "Correlation studies from ALICE", invited talk at the "Nikhef annual meeting", December 2014, Nijmegen, The Netherlands
- 2013
 - "Angular correlations at the LHC with ALICE", invited speaker at the "Zimanyi winter school on heavy-ion physics", December 2013, Budapest, Hungary
 - "Angular correlations in p-Pb and Pb-Pb collisions at the LHC", invited speaker at the "IX Workshop on particle correlations and femtoscopy", November 2013, Catania, Italy
 - "Results on angular correlations with ALICE", invited speaker at the "Strangeness in Quark Matter", July 2013, Birmingham, UK
 - Seminars over the Chiral Magnetic Effect at the "International school on Quark Gluon Plasma and heavy-ion collisions", July 2013, Siena, Italy
- 2012
 - "Charge correlations and balance functions at the LHC", invited speaker at the "Zimanyi winter school on heavy-ion physics", December 2012, Budapest, Hungary
 - "Balance function studies at the LHC", invited speaker at the "VIII Workshop on particle correlations and femtoscopy", November 2012, Frankfurt, Germany

- "Overview of results from ALICE at the LHC", invited speaker at the "International conference on new frontiers in physics", June 2012, Crete, Greece
- "Charge dependent correlations with the ALICE detector at the LHC", invited speaker at the "Workshop on P- and CP-odd effects in hot and dense matter", June 2012, New York, USA
- 2011
 - "Charge dependent correlations at the LHC", invited speaker at the "Rutherford centennial conference on nuclear physics", August 2011, Manchester, UK
 - "First results from fluctuation studies at the LHC", invited speaker at the "International Europhysics Conference on High Energy Physics", July 2011, Grenoble, France
 - "QCD phase transition, hydrodynamics, hadronization", lecture during the students' day at "Quark Matter", May 2011, Annecy, France
 - "Charge dependent azimuthal correlations in Pb-Pb collisions at $\sqrt{s_{NN}} = 2.76$ TeV", invited speaker at "Quark Matter", May 2011, Annecy, France

SUPERVISION – MENTORING

- 3 postdoctoral researchers
- 8 PhD candidates (3 ongoing)
- 24 MSc students (5 ongoing)
- 16 BSc students

LEADERSHIP POSITIONS

2020 – TODAY:	Deputy team leader at Nikhef
2022 – TODAY:	Member of the Editorial Board of ALICE
2018 – Today:	Member of the LHC Computing Resources Scrutiny Group (Dutch representative)
2016 – TODAY:	Member of the Computing Board of ALICE
2016 – 2019:	Member of the conference committee of ALICE (2 nd mandate)
2015 – 2019:	Chair of the staff meetings of Nikhef
2013 – 2016:	Member of the Physics Board of ALICE
2013 – 2016:	Physics convener "Correlations and Fluctuations" (ALICE)
2010 – 2013:	Member of the conference committee of ALICE (1 st mandate)
2005 – 2012:	<ul style="list-style-type: none"> - Physics convener of the Event-by-Event group, part of the PWG2 of ALICE - Software and analysis coordinator of the Event-by-Event group
2005 – 2009:	Software and analysis coordinator of the Physics Working Group 2 (PWG2 – Soft physics) of ALICE.

GRANTS – FELLOWSHIPS

2022:	Co-author of the funded proposal "Probing the phase diagram of quantum chromodynamics" by a Dutch consortium consisting of gravitational wave scientists, astronomers and astrophysicists, nuclear and collider physicists, and theoreticians (3.1M€)
2020:	Co-author of the funded proposal "FUSE" for the Dutch contribution to the LHC computing resources (12M€)
2005:	Marie Currie fellow at CERN, Switzerland

AWARDS

2019 – 2020:	Runner up "Teacher of the year", Physics Department at Utrecht University
2018 – 2019:	"Teacher of the year", Physics Department at Utrecht University
2017 – 2018:	"Teacher of the year", Physics Department at Utrecht University

OUTREACH

In the press	<ul style="list-style-type: none"> - "Higher anisotropic modes with ALICE", CERN Courier, September 2016 edition - "ALICE and the flowing particle zoo", CERN Courier, July 2014 edition - "Can heavy-ion collisions cast light on strong CP?", CERN Courier, October 2012 edition
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- "The window opens on physics at 7TeV", CERN Courier, October 2010 edition

2015 – TODAY: Invited speaker on various physics topics (e.g. particle physics, solar system, universe) at primary and high schools in the Netherlands

2011 – TODAY: Responsible for the ALICE contribution at the "Open dag" of Nikhef

2011 – TODAY: Short seminars at schools

2011 – TODAY: Guiding tours at Nikhef for high school and bachelor students' visits

2011 – TODAY: Seminars at Nikhef for high school and bachelor students' visits

2006 – 2011: Guide for Greek schools and visitors at CERN

2006 – 2007: Setting up the Masterclass project at CERN

ADMINISTRATION

2016: Computing course preparation committee (Utrecht University)

2014 – TODAY: Representative of the group of ALICE at the "Computer Gebruikers Overleg – CGO" of Nikhef

2014 – TODAY: Software coordinator of the ALICE group at Nikhef

2013 – TODAY: Member of the library committee of Nikhef,

2012 – TODAY: Responsible for the Dutch Tier-1 resources for ALICE

CONFERENCES/WORKSHOP/SEMINAR ORGANIZATION

2020 – TODAY: Member of the International Advisory Committee of the Zimanyi school of Physics, Budapest, Hungary

2017: Chair of the Alice Physics Week, held in Amsterdam

2017: Chair of the XII Workshop on Particle Correlations and Femtoscopy, held at Nikhef, Amsterdam

2015: Co-chair of the organizing committee of the topical lectures for PhD students held at Nikhef with the topic "Kinetic theory, Hydrodynamics and AdS/CFT to model heavy-ion collisions

2012: Co-chair of the organizing committee of the annual meeting of Nikhef, held in Utrecht

2011 – 2017: Chair of the scientific seminars at Nikhef

2010 – TODAY: Member of the International Advisory Committee of the "Workshop on particle correlations and femtoscopy – WPCF"

2009: Member of the Local Organizing Committee of the "V Workshop on particle correlations and femtoscopy – WPCF", held at CERN