

DR. VLASSIS PETOUSIS

CURRICULUM VITAE AND PUBLICATIONS LIST

PERSONAL DATA:

First Name: Vlassis
Last Name: Petousis
Nationality: Greek
Place of Birth: Volos, Greece
Date of Birth: February 18th, 1972
Email: petousis@ucy.ac.cy

RESEARCH EMPLOYMENT:

Sept 2015 – Today: Postdoctoral research associate (GSI - HADES collaborator), Nuclear & Heavy-Ion Physics Laboratory, University of Cyprus.

November 2014 - June 2015: APEX Experiment as External Research Collaborator, Jefferson Laboratory (JLab), Newport News, Virginia, USA.

July 2012 - July 2014: Postdoctoral research associate (GSI - HADES collaborator), Nuclear & Heavy-Ion Physics Laboratory, University of Cyprus.

June 2011 - June 2012: Postdoctoral research associate, Nuclear Physics Laboratory, Institute Rudjer Boskovic, Zagreb, Croatia.

September 2009 - June 2011: Research Fellow (during PhD), Physics and Astronomy Department, University of Würzburg, Germany.

January 2004 - December 2006: Research Program: ARCHIMIDIS II “Receiving and processing solar radio signals”.

6 YEARS TEACHING EXPERIENCE IN ACADEMIA:

September 2003 - July 2009: Lecturer in Applied Physics (contract renewed annually). Technological Education Institute (T.E.I) - Lamia in Greece.

EDUCATION:

2007- 2011 PhD **Electrical and Computer Engineering**: University of Thessaly, Greece.
Field of application - experience from 2011 - today: Nuclear and High Energy Physics Experiments.

1998 - 2000 MSc Physics: University of Ioannina, Greece.
1992 - 1997 BSc Physics: University of Ioannina, Greece.

LANGUAGES:

- Greek (Native)
- English (Fluently)
- German (Good knowledge)

COMPUTATIONAL EXPERIENCE:

- Linux (Ubuntu, Scientific Linux)
- L_AT_EX
- C++
- UrQMD – PLUTO
- GEANT 4
- ROOT 5.34

SCIENTIFIC INTERESTS:

- Hadron Physics – Strongly Interacting Matter.
- Heavy Ion Collision Experiments.
- Nuclear and High Energy Physics Experiments.

BOOK TRANSLATIONS:

“For the Love of Physics: From the End of the Rainbow to the Edge of Time - A Journey Through the Wonders of Physics” By W. Lewin and W. Goldstein.

RADIO TALKS AND TV APPEARANCES:

- 2015 Panel discussion about the 20th of March 2015 Solar Eclipse, SIGMA TV, Cyprus.
- 2015 Personal Interview, ANT1 TV, Greece.
- 2008 Radio discussion about summer school for amateur astronomers, Volos, Local Radio station.
- 2006 Radio discussion about the 29th of March 2006 Solar Eclipse, Volos, Local Radio station.

PARTICIPATIONS IN SCHOOLS & CONFERENCES:

- 1998: Summer School, Democritus National Center for Scientific Research in Athens, Greece
- 2003: 6th Greek Astronomical Conference, Penteli, Athens, Greece.
- 2005: Summer School “Turbulence and Fine Scale Structure in Solar and Astrophysical Plasma” Castello di Montegufoni Firenze- Italy 03-07 October.
- 2006: 11th Conference of Greek Physicists Union, 30 March-02 April, Larisa, Greece.
3rd Greek Conference for Physics Science Education, 07-09 April, Volos, Greece.
- 2008: 12th Conference of Greek Physicists Union, 20-23 March 2008, Kavala, Greece (as a Speaker).
3rd Heidelberg Summer School International Max Planck Research School at the of Heidelberg. September 1-5.
- 2009: 40th IFF Spring School Spintronics–From GMR to Quantum Information 9-20 March Jülich Germany.
- 2011: PECCS 2011 “International Conference in Pervasive and Embedded Computing and Communication Systems” Vilmoura – Algavre – Portugal, 05-07 March.
DAQ Workshop, 4-5 November, Institute Rudjer Boskovic (IRB).
- 2012: 48th Karpacz Winter School of Theoretical Physics, 04-11 February, Wraclaw, Poland.
6th International Conference on Quarks and Nuclear Physics (QNP 2012-celebrating 40

years development of QCD), 16 -20 April, Palaiseau, Ecole Polytechnique, France.

XXV HADES Collaboration Meeting. 19-22 November, Darmstadt, Germany.

2013: XXVI HADES Collaboration Meeting. 27-31 May, Prague.

2014: XXVII HADES Collaboration Meeting. 5-7 February, Garching- Munich, Germany.

HEP 2014 - Conference on Recent Developments in High Energy Physics & Cosmology, 8-10 May, Naxos, Greece.

Invited talk about Dark Matter in a Scientific Colloquium “Hunting for Higgs Particles” University of Cyprus, 13 November 2014.

RESEARCH EXPERIENCE

September 2015 – Today

Postdoctoral Position: Nuclear and Heavy Ion Physics Laboratory at the University of Cyprus.

November 2014 - June 2015

APEX Experiment as External Research Collaborator, Jefferson Laboratory (JLab), Newport News, Virginia, USA. Working with VDCs (Vertical Drift Chambers), trying to improve the tracking efficiency at 5 MHz.

July 2012 - July 2014

Postdoctoral Position: Nuclear and Heavy Ion Physics Laboratory at the University of Cyprus (on behalf of the HADES Collaboration at GSI in Darmstadt – Germany).

- Study of nuclear matter under extreme conditions of high temperature and high baryonic density (Heavy-Ion Collisions).
- Installation and testing of “HADES Software Package” for simulation and analysis in a Linux Cluster (High Performance Computer Cluster - HPCC - Linux Cluster at the Nuclear and Heavy Ions Physics Laboratory).
- Development of a sophisticated software in order to make the different parts of the simulation and analysis in “HADES Software Package” much faster, efficient and reliable.
- Monte-Carlo simulations (UrQMD or PLUTO) and data analysis using ROOT.
- Analyzing HADES detector data in the research for that so called Dark Photon. “Searching a dark photon with HADES” Physics Letters B 731(2014), 265–271,
- Duties as an adviser for PhD and diploma students.

June 2011 - June 2012

Postdoctoral Position: Nuclear Physics Laboratory at Rudger Boskovic Institute in Zagreb - Croatia.

Particle Detectors FP7- Project: “Upgraded Facility for Development of Silicon and Diamond Particle Detector Systems. Strengthening the silicon detector R&D capabilities”.

- Development of a DAQ system using FPGAs for Silicon detectors testing.
- Participation at the NA61 experiment-CERN (Main task: helping in software upgrade using ROOT).
- Improvement of the background removal software (mixing events) for the strange mesons.

PUBLICATIONS LIST:

PUBLISHED IN 2016

Inclusive Λ production in proton-proton collisions at 3.5 GeV

HADES Collaboration (J. Adamczewski-Musch et.al), e-Print: [arXiv:1611.01040](https://arxiv.org/abs/1611.01040) [nucl-ex]
(Accepted on 04/01/2017 for publication as a regular article at Physics Review C)

The Λp interaction studied via femtoscopy in p+Nb reactions at $\sqrt{s_{NN}} = 3.18$ GeV

HADES Collaboration (J. Adamczewski-Musch et.al), Phys. Rev. C 94 (2016) no.2, 025201

Strange hadron production at SIS energies: an update from HADES

HADES Collaboration (M. Lorenz (Frankfurt U., Inst. Kernphys. & Utrecht U.) et al.). 2016. 9 pp.
Published in J.Phys.Conf.Ser. 668 (2016) no.1, 012022

PUBLISHED IN 2015

Investigating hadronic resonances in pp interactions with HADES

HADES Collaboration (Witold Przygoda (Jagiellonian U.) et al.). 2015. 10 pp.
Published in EPJ Web Conf. 97 (2015) 00024

Highlights of Resonance Measurements with HADES

HADES Collaboration (Eliane Epple (Munich, Tech. U. & Munich, Tech. U., Universe) et al.). 2015. 8 pp.
Published in EPJ Web Conf. 97 (2015) 00015

PUBLISHED IN 2014

Measurement of the quasi free $np \rightarrow n\pi^+\pi^-$ and $np \rightarrow pp\pi^-\pi^0$ reactions at 1.25 GeV with HADES

EPJ Web of Conference 81, 02009 (2014)

Time of flight measurement in heavy-ion collisions with the HADES RPC TOF wall"

12th workshop on resistive plate chambers and related detectors, 23–28 February 2014,
Tsinghua University, Beijing, China. JINST 9 C11015

Searching a dark photon with HADES

Physics Letters B 731(2014), 265–271

PUBLISHED IN 2013

Hadrons to Vector Mesons – Photons and the Electromagnetic Form Factors

Vlasios Petousis. arXiv:1301.4921v1 [hep-ph]

PUBLISHED IN 2012

Theoretical Review on QCD and Vector Mesons in Dileptonic Quark Gluon Plasma

Vlasios Petousis. arXiv:1208.4437v3 [hep-th]

A generalized dilaton gauge field for the rho-meson mass spectrum in the soft-wall AdS-QCD

Vlasios Petousis. arXiv:1207.1311v2 [hep-th]

The ρ -meson mass spectrum using soft-wall QCD

Vlasios Petousis. Published at the PoS (Proceedings of Science <http://pos.sissa.it/>). 2012.
6th International Conference on Quarks and Nuclear Physics ("QNP 2012-celebrating 40 years development of QCD").

PUBLISHED IN 2011

General Development of a New Hall Effect Sensor

Vlassis N. Petoussis, George Stamoulis, Panos Dimitropoulos University of Thessaly-Department of Electrical and Computer Engineering. (IFSA Sensors and Transducers, Volume 127, Issue 4, April 2011).

PUBLISHED IN 2009

A Novel Hall Effect Sensor Using Elaborate Offset Cancellation Method

Vlassis N. Petoussis, Panos Dimitropoulos, George Stamoulis
(IFSA Sensors and transducers, Volume 100, Issue 1, January 2009).

Galvanomagnetic Effects: Sensors Depending on Hall Effect

Vlassis N. Petoussis, Panos Dimitropoulos. "Journal of Engineering Science and Technology Review".
Vol.2.Lecture Note pp.1-7 (2009).

PUBLISHED IN 2008

Measuring Solar Radio Bursts in the range 20-650 MHz

Kontogeorgos, P. Tsitsipis, C. Caroubalos, X. Moussas, P. Preka-Papadema, A. Hillaris, V. Petoussis, J.-L. Bougeret, C. E. Alissandrakis, G. Dumas. Measurements Elsevier 41 (2008) 251-258.

PUBLISHED IN 2006

The improved ARTEMIS IV Multichannel solar radio spectrograph of the University of Athens

Kontogeorgos, P. Tsitsipis, C. Caroubalos, X. Moussas, P. Preka-Papadema, A. Hillaris, V. Petoussis, J.-L. Bougeret, C. E. Alissandrakis, G. Dumas. Experimental Astronomy 21, (2006) 41-55, DOI: 10.1007/s10686-0069066x. arXiv: 1009.3628 [astro-ph].

Type II and IV radio bursts in the active period October-November 2003

V. Petoussis, P. Tsitsipis, A.Kontogeorgos, X. Moussas, P. Preka-Papadema, A. Hillaris, C.Caroubalos, C. E. Alissandrakis, J.-L. Bougeret, G. Dumas. AIP Conf.Prof. 848 (2006) 199-206. arXiv: 1009.4485[astro-ph.SR]

Ten Years of the Solar Radiospectrograph ARTEMIS IV

C. Caroubalos, C. Alissandrakis, A. Hillaris, P. Preka-Papadema, J. Polygiannakis+, X. Moussas, P.Tsitsipis, A. Kontogeorgos, V. Petoussis, C. Bouratzis, J-L.Bougeret, G.Doumas, and A.Nindos.
AIP Conf.Prof. 848 (2006) 864-873. arXiv: 1009.4150[astro-ph.SR]

Radio Bursts in the Active Period January 2005

K. Bouratzis, P. Preka-Papadema, A. Hillaris, X. Moussas, C. Caroubalos, V. Petoussis, P.Tsitsipis, and Kontogeorgos. AIP Conf.Prof. 848 (2006) 213-217. arXiv: 1009.4310[astro-ph.SR]

PUBLISHED IN 2004

Solar Flares With and Without Coronal Mass Ejections and Type II Shocks

Hillaris, V. Petoussis, E. Mitsakou, C. Vassiliou, X. Moussas, J. Polygiannakis+, P. Preka-Papadema, Caroubalos, C. Alissandrakis, P.Tsitsipis, A. Kontogeorgos, J-L.Bougeret and G.Doumas.
35th COSPAR Scientific Assembly. Held 18 - 25 July 2004, in Paris, France, p.2293