

School of Physics
Aristotle University of Thessaloniki
54124, Thessaloniki, Greece

☎ +30 2310998032
+30 2310998165

✉ manousos@cern.ch
<http://cern.ch/manousos>

Athanasios Manousos

PERSONAL INFORMATION

Father's Name Dimitrios
Date of Birth November 04, 1988
Place of Birth Kavala, Macedonia, Greece
Nationality Hellenic
Marital Status Single

CURRENT POSITION

Graduate Physicist
School of Physics
Nuclear and Elementary Particle Physics Department
Aristotle University of Thessaloniki, Greece

EDUCATION

2006 - 2012 **B.Sc. 'Ptychio' (4-year Degree) in Physics**
School of Physics
Nuclear and Elementary Particle Physics Department
Aristotle University of Thessaloniki, Greece.
Webpage: <http://www.physics.auth.gr>
GPA: 7.71 out of 10.0; full grade's transcript attached

Undergraduate Thesis

Title Monte Carlo Simulations for Cherenkov Telescope Array (CTA)
Supervisor Assoc. Professor Christos Eleftheriadis
Area of Study Astroparticle Physics, CTA (Cherenkov Telescope Array)
Monte Carlo Simulations with Corsika, Sim_Telarray and ROOT

2003 - 2006 **Secondary Education**
Graduated from 1st High School of Kavala, Greece
Graduation date: June 2006
GPA: 18.6 out of 20.0; full grade's transcript attached

2000 - 2003 **Secondary Education**
Graduated from Experimental Gymnasium of Kavala, Greece
Graduation date: June 2003
GPA: 19.6 out of 20.0; full grade's transcript attached

LANGUAGES

Greek Excellent (native)
English Excellent
French Fluent

ACADEMIC EXPERIENCE

January 2008 to - **Teaching Assistant - School of Physics**

Teaching Assistant in the Applied Informatics Lab of School of Physics

Provided in-class support to first-year undergraduate students.

Assisted in organizing the lab and teaching the students.

Webpage: <http://mater.physics.auth.gr/pclab>

TECHNICAL SKILLS

Extensive hardware and software experience in programming and scientific packages.

Operating Systems

All Microsoft operating systems, Unix, All Linux Distributions, BSD / FreeBSD, MacOS X

Programming Languages

Procedural	C, Fortran(Basic Knowledge)
Object-Oriented	C++, Python
Visual	Visual C++
Shells-Scripts	C, Bourne, Bash, MS-DOS, Python(Basic Knowledge)
Web	HTML

Tools

Scientific	FLUKA, ROOT, OriginLab Plot, GNU Octave, GnuPLOT, Wolfram Mathematica™, Mathworks MATLAB™, Mathworks MATLAB™Toolboxes Corsika, Sim_Telarray, GEANT4 Simulation Package (Basic Knowledge)
Instrumentation and Control	Mathworks MATLAB Simulink, LabVIEW and other NI programs (Basic Knowledge)
CFD	ANSYS (Basic Knowledge)
Administration	Apache(Basic Knowledge)
Data-Base	mySQL(Basic Knowledge), Oracle SQLPlus™(Basic Knowledge)

Office Automation

TEX, L^AT_EX, B_IB_TE_X, Microsoft Office™

SCIENTIFIC INTERESTS

Computational Physics (Monte Carlo Simulations)

Model development for particle physics and accelerator driven systems

Code development

Particle and Astroparticle Physics

Gamma Ray Astronomy **High and Very-high Energy Gamma-Ray and Cosmic-Ray Astronomy: Joined to the CTA (Cherenkov Telescope Array) Project.**

CTA stands for an initiative to build the next generation ground-based gamma-ray instrument, which is supposed to serve as an open observatory to a wide astrophysics community and which will provide the deepest ever insight into the non-thermal high-energy universe.

Webpage: <http://www.cta-observatory.org>

CAST Experiment **Joined to the CAST experiment (CERN Solar Axion Telescope).**
CAST uses a LHC prototype magnet with a field of $B = 9.0T$ in the interior of two parallel pipes of length $L = 9.26m$. The magnet is mounted on a moving platform with low-background x-ray detectors on either end, allowing it to track the Sun. Participation in data taking and data analysis.

Webpage: <http://cast.web.cern.ch/CAST/>

Nuclear Astrophysics **Joined to nTOF (neutron Time-Of-Flight Facility) Project at CERN.**
nTOF is a neutron source that has been operating at CERN since 2001. It is a unique facility in which neutrons are produced in a wide range of energies and in very intense beams. This allows precise measurements of neutron related processes that are relevant for several fields. One example is nuclear astrophysics where data produced by nTOF are used to study the ordinary stellar evolution as well as supernovae. Intense neutron beams are also critical in the studies of processes of incineration of radioactive nuclear waste and for a better understanding of the effects of radiation in the treatment of tumors with beams of hadrons (hadrontherapy).

Webpage: <https://twiki.cern.ch/twiki/bin/view/NTOF/>

PRESENTATIONS

The following presentations are available through my homepage:

- [1] **“Introduction to ROOT”**
26 May 2009, Nuclear and Elementary Particle Physics Department
School of Physics, Aristotle University of Thessaloniki, Greece
- [2] **“Introduction to ROOT”**
29 June 2010, Nuclear and Elementary Particle Physics Department
School of Physics, Aristotle University of Thessaloniki, Greece
- [3] **“Energetic axion-like particle production in galaxies”**
8th International Workshop on Identification of Dark Matter - IDM 2010
26-30 July 2010, University of Montpellier, France

CONFERENCES AND WORKSHOPS

The following Conferences and Workshops have been followed:

*(Those marked by a * were with presentation)*

- [1] **“Nonlinear Science and Complexity”**
20th Summer School - Conference, 19-29 July 2007, Patras, Greece
- [2] **“XXV Panhellenic Conference on Solid State Physics and Materials Science”**
20-23 September 2009, Thessaloniki, Greece
- [3] **“9th Quattor Workshop”**
17-19 March 2010, Aristotle University of Thessaloniki, Thessaloniki, Greece
- [4] **“XXVIII Workshop on Recent Advances in Particle Physics and Cosmology”**
25-28 March 2010, Thessaloniki, Greece
Member of the Local Organizing Committee (Webmaster)
- [5] **“Low X Workshop”**
June 23-27 2010, Kavala, Greece
- [6] **“8th International Workshop on Identification of Dark Matter - IDM 2010”**
26-30 July 2010, University of Montpellier, France (*)

SEMINARS

The following Seminars have been followed:

- [1] **“Introduction to MatLab and Programming Technics”**
Organized by MENTOR Hellas and Aristotle University of Thessaloniki, 04 December 2009, Thessaloniki, Greece

- [2] **“Introduction to MatLab and Programming Technics”**
Organized by MENTOR Hellas and Aristotle University of Thessaloniki, 16-17 March 2010, Thessaloniki, Greece
- [3] **“Computational Fluid Dynamics with ANSYS CFD, ANSYS CFX, ANSYS FLUENT (ANSYS Workbench) and ANSYS FSI - Fluid Structural Interaction”**
Organized by PhilonNet Hellas and Aristotle University of Thessaloniki, 01 March 2011, Thessaloniki, Greece
- [4] **“MatLab Workshop: Development of Statistical Analysis and Data Model”**
Organized by MENTOR Hellas, 26 April 2012, Thessaloniki, Greece

PUBLICATIONS

(* indicates a significant contribution)

A Publications in Scientific Journals

- [A.1] *“Simultaneous measurement of neutron-induced capture and fission reactions at CERN”*,
C. Guerrero, .., A. Manousos, .. et al. (The n_TOF Collaboration)
Journal: The European Physical Journal (2012) 48: 29. Highlighted paper - Cover article
DOI 10.1140/epja/i2012-12029-2

B Conferences and Workshops

- [B.1] *“Energetic axion-like particle production in galaxies”*,
A. Manousos, A. Liolios, C. Eleftheriadis,
Journal: PoS - Proceedings of Science PoS(IDM2010)034
Prepared for IDM 2010: 8th International Workshop on Identification of Dark Matter
e-Print: arXiv:1104.1572 [astro-ph.HE]
- [B.2] *“Present status and future programs of the n_TOF experiment”*,
E. Chiaveri, .., A. Manousos, .. et al. (The n_TOF Collaboration)
Journal: EPJ Web of Conferences Vol. 21 (2012) 03001
DOI 10.1051/epjconf/20122103001

SCIENTIFIC ACTIVITIES - EXPERIENCE

- January 2008 - Member of Astroparticle Physics Group (A.P.G.)
School of Physics, Aristotle University of Thessaloniki, Greece
Webpage: <http://astroparticle.physics.auth.gr>
- December 2009 - THALIS 2009 Research Program - Funding by Ministry of Education
Participation in writing the scientific proposal mainly in the subjects of Monte Carlo Simulations and other relevant tasks
Webpage: <http://astroparticle.physics.auth.gr/proposal.htm>
- 2009 – 2012 CERN - European Organization for Nuclear Research
CAST Experiment (Participation in data taking and data analysis)
nTOF Experiment (Participation in data taking)

OTHER ACTIVITIES - INTERESTS

- Computing Programming languages
Interested in developing scientific applications, mainly for Linux environments.
- Music Playing the piano and synthesizer, almost for 15 years.
- Painting Painting with oil, watercolor and ink, for about 17 years.
- Sports Football, Swimming

REFERENCES

These persons are familiar with my professional qualifications and my character:

Associate Professor Christos Eleftheriadis

Undergraduate thesis supervisor

School of Physics

Nuclear Physics Department

Aristotle University of Thessaloniki

54124, Thessaloniki, Greece

Phone: +30 2310998165

Fax: +30 2310998—

Email: celefthe@cern.ch

Web: <http://cern.ch/celefthe>

Associate Professor Anastasios Liolios

School of Physics

Nuclear Physics Department

Aristotle University of Thessaloniki

54124, Thessaloniki, Greece

Phone: +30 2310998016

Fax: +30 2310998—

Email: lioliosa@auth.gr

Web: <http://www.physics.auth.gr/people/41>

Assistant Professor Mavroeidis Angelakeris

School of Physics

Solid State Physics Department

Aristotle University of Thessaloniki

54124, Thessaloniki, Greece

Phone: +30 2310998172

Fax: +30 2310998019

Email: agelaker@auth.gr

Web: <http://users.auth.gr/agelaker>

Associate Professor Evaggelos Vanidhis

School of Physics

Solid State Physics Department

Aristotle University of Thessaloniki

54124, Thessaloniki, Greece

Phone: +30 2310998219

Fax: +30 2310998019

Email: vanidhis@auth.gr

Web: <http://users.auth.gr/vanidhis>

Assistant Professor Theodoros Samaras

School of Physics

Applied and Environmental Physics Dept.

Aristotle University of Thessaloniki

54124, Thessaloniki, Greece

Phone: +30 2310998232

Fax: +30 2310998—

Email: theosama@auth.gr

Web: <http://users.auth.gr/theosama>

UPDATED

May 04, 2012