Curriculum Vitae

A. PERSONAL INFO.

Name:	*Efstathios (Stathis)*
Surname:	*Stefanidis*
Date/Place of birth:	*August 6th, 1977 / Kilkis, Greece*
Nationality:	*Greek*
Present work address:	*Dept. of Physics and Astronomy.* *University College London* *Gower Street, WC1E 6BT* *London, United Kingdom*
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B. EDUCATION.

- **September 2003 - September2006 (expected) : *PhD in High Energy Physics***
  University College London, Dept. of Physics and Astronomy, High Energy Physics Group.
- **September 2000 - June 2003: *MSc in Nuclear and Particle Physics***
  University of Athens, Dept. of Physics, Division of Nuclear and Particle Physics.
- **September 1998 - January 1999: *Participation in the ERASMUS program***
  University of Leeds, Dept. of Physics and Astronomy.
- **September 1995 - June 2000: *BSc in Physics***
  Aristotle University of Thessaloniki, Dept. of Physics.

C. WORKING EXPERIENCE.

- **September 2003 - now :** Responsible for the High Energy Physics Library (Spreadbury Library), Dept. of Physics and Astronomy, UCL.
- **September 2001 - June 2003 :** Private School "Stochos - H. Giannakopoulos", Kanigos Sqr. - Athens.
- **September 1995 - June 2000 :** Private School "Protoporiako - N. Anastasiadis, G. Katidis", Kilkis.

D. RESEARCH ACTIVITIES.

I'm currently involved in the following activities for the ATLAS Detector:

1. **WW scattering as a way to probe dynamic breaking of the Electroweak Symmetry.** See Publication/Conference [1].

2. **Level 2 Trigger.** See Publication [2].

During my studies for the MSc Degree, I worked on:

1. **Physics studies and discovery potential of the Higgs particle through the channel $H \rightarrow ZZ \rightarrow 2\mu^{-}\mu^{+}$, at the ATLAS detector**. I studied probable misalignments of the muon drift chambers and how these could affect the reconstructed Higgs mass. For this, I developed a C++ code , which fits the muons' momenta under the constraint of the invariant mass of the Z boson, using the Langrange multipliers.

2. **Software development for the data aquisition during the construction of the drift tubes for the ATLAS detector.** The software contributes to the assembly line by providing, on the one hand, a way for presision measurments and controls of the temperature, the wire's mechanical tension and the tube's length, on the other hand, an automatic recording of the data and finally filling up the global database.

3. **Support of the local database for the drift tubes' assembly line at the University of Athens.** The task includes the update of the local database and the constant support of the team's web-page.

In order to support my work, I participated in the following off-site activities:

- **August 2001, European Center for Nuclear Research (CERN) :** Installation and calibration of the hodoscope for the BIS test chamber, at X5/GIF beam area. 24 scintillators and photomultipliers were installed and arranged into two layers. The hodoscope is going to provide the trigger signal for the data acquition from the BIS drift chamber. I studied the timing resolution of the whole system using the timing spectra from cosmic muons. The calibration constants for each pair of overlapping scintillators were finally derived.

E. ACADEMIC TEACHING EXPERIENCE.

Supervision of the following laboratories:

- **September 2005 - December 2006 :** *Phys1B40 (Computing)*,
  Department of Physics, University College London.

- **September 2001 - May 2003 :** *Physics III (Electromagnetism), Nuclear Physics, Advanced Nuclear Physics*.
  Department of Physics, University of Athens.

Occasionally, I delivered private courses to the students, covering modules in Quantum Mechanics, Nuclear Physics, Maths, Probabilities and Statistics.

F. COMPUTING/TECHNICAL SKILLS.

1. **Windows, Unix (Linux)** operating systems.
2. **C/C++, Fortan, Visual Basic, ROOT, Pascal, LabView** programming languages.
3. **Access** and **MySQL** databases.
4. WEB design in **HTML, PHP**.
5. Familiar with many typesetting (eg. LaTeX) and graphics tools and with most of **Microsoft**'s packages.
6. **CAMAC, VME** platforms for data aquisition in High Energy Physics.

G. FOREIGN LANGUAGES.

English, French

H. DISTINCTIONS.

During my PhD studies, I had scholarships and supports from the following:

1. 'Alexander S. Onassis' Foundation.
2. University College London.
3. Particle Physics and Astronomy Research Council.

I. PUBLICATIONS / INTERNAL NOTES.
(only those where I am one of the main authors)

1. **Electroweak Symmetry Breaking without the Higgs Boson.** *Stefanidis S. Proceedings of the Conference 'Physics at LHC'. [To be published in Acta Physica Polonica B].*
2. **Optimisation of the size of the EmTau Region of Interest for the ATLAS Level-2 Trigger using the Electromagnetic Calorimeter.** *Konstantinidis N.P, Stefanidis S, Sutton M.R. [CERN-ATL-COM-DAQ-2005-038].*
3. **A new compact MDT wire tension meter.** *D. Fassouliotis, P. Ioannou, C. Kourkoumelis, S. Stefanidis, A. Kulemzine. [ATL-MUON-2001-003].*
4. **Improvements/Experience derived from wiring 10% of BIS MDTs.** *D. Fassouliotis, P. Ioannou, C. Kourkoumelis, V. Pancheluga, T. Papas, S. Stefanidis, V. Birioukov. [ATL-MUON-2001-005].*

5. **Influence of the alignment of the muon chambers to SM Higgs reconstruction** $H \rightarrow 4\mu$ *D. Fassouliotis, C. Kourkoumelis, S. Stefanidis, D. Levin. [ATL-COM-PHYS-2003-041].*

6. **Study of the effect of the misalignment of the muons' detectors at the ATLAS experiment, on the discovery potential of the Higgs particle** $H \rightarrow 4\mu$**.** *S. Stefanidis,* MSc Thesis, High Energy Physics Library (University of Athens). [Ref. No : 2906/4-12-03].

7. **Detection of cosmic ray muons with 4x4 MDT chamber and track reconstruction using LabView.** *S. Stefanidis,* BSc Thesis, Physics Dept. Library (Aristotle University of Thessaloniki) . [Ref. No : D463].

J. CONFERENCES.

- **Physics at LHC,** *3-9 July 2006, Krakow, Poland.*
  Talk Title: "Electroweak Symmetry Breaking withoug the Higgs Boson".

- **Particle Physics 2006,** organised by the High Energy Particle Physics Group of the Institute of Physics. *10-12 April 2006, Warwick, UK.*
  Talk Title: "$W_L W_L$ scattering at LHC".

- **Workshop on Recent Developments in High Energy Physics and Cosmology (HEP2005),** *24 April 2005, Thessaloniki, Greece.*
  Talk Title: "Studies on the High Level Triggering System of the ATLAS Detector".

- **Workshop on Recent Developments in High Energy Physics and Cosmology (HEP2003),** *17-29 April 2003, Athens, Greece.*

- **Recent Advances in High Energy Physics (HEP2001)**, Annual meeting of the hellenic society for the study of High Energy Physics, *25-27 April 2002, Heraklion, Greece, SPIRES Conf. Num: C01/04/06.*
  Talk Title: "Data Aquisition for the MDT Assebly at the University of Athens".

- **The Right to Education**, 18th international conference, *10-18 July 2000, Geneva, Switzerland* (Under scholarship from the Council of Europe and the UNESCO Chair at the Aristotle University of Thessaloniki).

- **Universities towards a Culture of Human Rights and Peace,** International conference organised the UNESCO Chair at the Aristotle University of Thessaloniki, *4-6 December 1999, Thessaloniki, Greece.*
  Talk Title: "Youth towards a Culture of Human Rights and Peace".

- **Teaching Physics and transfer of new technologies in education,** 1st national conference, 1*2-15 May 1998, Thessaloniki, Greece.*

- **Environment and Society,** International Conference organised by UNESCO, *10 -15 December 1997, Thessaloniki, Greece.*

- **Euroscola International Workshop,** *9-15 November 1994, Council of Europe, Strasbourg, France.*