

Curriculum Vitae

Andreas Hadjigeorgiou

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EDUCATION

Oct. 2019 – Present

The Cyprus Institute, **C**omputation-based **S**cience and **T**echnology **R**esearch **C**enter (CaSToRC)

PhD in Computational Sciences, The project is in cooperation with the Delphi Consortium (Delft University of Technology). Working on the computational and mathematical optimization of wave propagation and imaging algorithms.

Sept. 2018 – Aug. 2019

University of Edinburgh, Edinburgh Parallel Computing Center

M.Sc. in High Performance Computing, *Awarded the Highly Skilled Workforce Scholarship*

Grade 6.0/10 | UK 2:1

Key Courses:

- *Advanced Message-Passing Programming using MPI*
- *Threaded programming using OpenMP*
- *Programming skills & Software development*
- *Performance programming & HPC Architectures*
- *Parallel Design Patterns*

Most practiced: *(performance) programming skills, working under pressure, writing reports, code optimization, C/C++ programming*

Sept. 2014 – May 2018

- University of Cyprus, Department of Physics
- B.Sc. in Physics
- *Final Grade 7.62/10*

Most practiced: *critical thinking, working under pressure, problem solving skills, understanding mathematical relations and numerical algorithms, research experience*

2010 - 2013

Terra Santa College, Nicosia
High School Certificate 18.9/20

Honours and Achievements:

- Scholarship for full waiving of my postgraduate studies fees from the University of Edinburgh.
- Scholarship for my undergraduate studies from the Cyprus government.
- Scholarship for my postgraduate studies from the Cyprus government.

WORK EXPERIENCE

- **CERN Summer Student (11th June 2018 – 17th August 2018)**
I have been a CERN summer student during the summer of 2018 for approximately 10 weeks where I was assigned to work on a project under the supervision of a staff member. The project involved hands-on work/experience in a nuclear physics for the preparation of “Gamma NMR spectroscopy” experiment & simulation of the experiment using a MATLAB program.

RESEARCH EXPERIENCE

- **B.Sc. final year project: (June 2017 – May 2018)**
Related Field: *Theoretical Condensed Matter Physics*
Graded: *Distinction*
In my final year thesis project I was trying to find analytical solutions of a non-linear partial differential equation (Gross-Pitaevski equation) which was used as model equation for the description of a phenomenon known as “Bose-Einstein Condensation”. The project involved work with Wolfram Mathematica language for the analytical solutions and FORTRAN programming for the numerical solutions.

PUBLICATION

Stavros Theodorakis and Andreas Hadjigeorgiou, “*The Wavefunction of the Collapsing Bose Einstein Condensate*” *J. Phys. B: At. Mol. Opt. Phys.* **50** 235301 (2017)

SKILLS

Computing

- **C/C++** : Medium-to-advanced knowledge. Familiar with O.O. Programming, able to write low-level optimized codes.
- **Python**: Medium level. I usually interface with C/C++ for higher performance on the heavy parts and let python be the “glue” code.
- **FORTRAN**: Medium level.
- **CUDA**: Good understanding of what are the key points to write efficient low-level GPU code.
- Parallel programming: **MPI** (message-passing programming), **OpenMP** (thread based programming)
- Familiar with both **UNIX** operating systems (**Ubuntu**), and **Windows**
- Tools: **Latex**, **Wolfram- Mathematica**, **GNU PLOT**, **MS Office**
- Profiling: **Valgrind (Cachegrind)**, **Score-P**, **nvprof**
Version control: **Github**

Languages

- Greek: Native Language
- English: Very Good
- Italian: Medium level

INTERESTS

I have always like doing sports and keep myself active. I dance Latin on a weekly basis and play football in my village’s team.