

Mostafa Adnane

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EDUCATION

ECOLE POLYTECHNIQUE

MASTER'S DEGREE IN THEORETICAL PHYSICS

Expected June 2017 | Palaiseau, France

BACHELOR'S DEGREE IN MATHEMATICS AND PHYSICS

2014 - 2016 | Palaiseau, France
GPA: 3.85/ 4.0

CLASSES PRÉPARATOIRES MOULAY YOUSSEF

2013 - 2014 | Rabat, Morocco
GPA: 3.9/ 4.0

Studied in a class gathering the most brilliant students in Morocco. Courses included advanced mathematics, physics, Chemistry and computer science, to pass the highly competitive examinations, leading to the most prestigious universities of Science and Engineering in France

REFERENCE HIGH SCHOOL

July 2012 | Meknes, Morocco
Baccalaureate in Mathematics and Physics with high honors

COURSEWORK

MASTER'S DEGREE

- General Relativity.
- Quantum Field Theory.
- Representation Theory and Quantum Symmetries.
- Particle Physics.
- Stellar Astrophysics.
- Quantum Optics.
- Solid State Physics.
- Compact Groups and Lie Groups

BACHELOR'S DEGREE

- Algebra and Galois Theory.
- Quantum Mechanics.
- Statistical Physics.
- Relativity Theory and Variational Methods.
- Differential Geometry.
- Dynamic Models Control.
- Numerical Approximation and Optimization.
- Markov Chains.
- Spectral Theory

RESEARCH

LABORATOIRE DES SOLIDES IRRADIÉS | RESEARCH ASSISTANT

September 2016 - March 2017 | Palaiseau, France | Advisor: J.E Wegrowe

- Investigating the magnetization dynamics in the inertial regime at small scales
- Redefining the magnetic moment for the classical loop during the Larmor precession with perturbative methods
- Investigating the generation of spin currents using variational methods

EDF ENERBAT CENTER | SCIENTIFIC TEAM PROJECT

July 2015 - April 2016 | Palaiseau, France

- Designed, within a group of six students, an optimisation strategy incorporating the simulation of the dynamical thermal behaviour of a building stock
- Developed a geometrical method that evaluates the sun's shadow in a building stock

WORK EXPERIENCE

CDG CAPITAL | DATA SCIENTIST INTERN

June 2016 - August 2016 | Rabat, Morocco

- Analyzed statistical data and contributed to the analysis, the definition and the implementation of new market risk measurement

FRENCH MINISTRY OF EDUCATION | TEACHING ASSISTANT

October 2014 - April 2015 | Aubervilliers, France

- Tutored high school students in need from Priority Education Zones in Mathematics and Physics
- Organised extra-curricular activities for 30 boarding students
- Launched a math club to prepare students to National Mathematical Olympiad

AWARDS AND HONORS

2016 Ranking among the top 10 of 400+ students at Ecole Polytechnique
2014 French Government Major-Excellence Scholarship
2012 Moroccan Government Major-Excellence Scholarship
2012 Bronze Medal at the International Mathematical Olympiad -Argentina
2012 Regional and Moroccan National Mathematics Olympiad (MMO) Winner
2011 Regional Mathematics Olympiad Winner
2010 Regional Mathematics Olympiad Winner

LANGUAGES

- English: Fluent.
- French: Fluent.
- Arabic: Fluent.
- German: Beginner.

SKILLS

Java • Python • Scilab • Matlab •
L^AT_EX • Matematika •