



CURRICULUM VITAE

Giuseppe De Laurentis

PERSONAL DETAILS

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Nationality Italian

HIGHER EDUCATION

- PhD in Particle Physics Phenomenology October 2016 - March 2020 (Expected)
Durham University - Institute for Particle Physics Phenomenology
Supervisor: Daniel Maitre
- Master of Physics - First Class - Winton Capital Prize October 2012 - September 2016
Oxford University - St Hugh's College
Major Options - Theoretical and Particle Physics
Qualifying examinations - Passed with Distinction
- Harvard University Summer Term 2011
Physics (Mark: A)
- Stanford University Summer Term 2010
Calculus (Mark: A+)
Introduction to Statistics (Mark: A)

AWARDS

- 3.5 years STFC scholarship for a PhD at the IPPP (Durham University) October 2016 - March 2020
- Winton Capital Prize for the best MPhys Research Project 2016
- Title of Scholar at St. Hugh's college 2013 - 2016

ADDITIONAL EDUCATION & EXAMS

- GRE General 1 October 2015
Verbal Reasoning - Scaled Score: 165/170 - Percentile: 95^o
Quantitative Reasoning - Scaled Score: 168/170 - Percentile: 95^o
Analytical Writing - Scaled Score: 3.5/6 - Percentile: 38^o
- GRE Physics 19 September 2015
Scaled Score: 920/990 - Percentile: 87^o
- SAT Maths 2 800/800 - Percentile: 88^o 2011
- SAT Physics 800/800 - Percentile: 89^o
- Stanford University Mathematics Camp (SUMaC) One month during summer 2009
- ID Tech Camp in Orlando, Florida Two weeks during summer 2008
ID Tech Camp in Stanford, California Two weeks during summer 2007
Programming and web design (C,C++,Flash,Dreamweaver)
- Diploma di Maturita' - Italian scientific high school diploma September 2007 - June 2012
Liceo Scientifico Statale Leonardo da Vinci, Milan

PROFESSIONAL EXPERIENCE

3rd Year Foundations of Physics 3A 2017 - 2018
Durham University - Department of Physics

3rd Year Mathematical Workshop Demonstrator 2016 - 2017 & 2017 - 2018
Durham University - Department of Physics

Internship at Mecaer Aviation Group - AugustaWestland supplier
Via Arona 46 - Borgomanero (No) 28021 One month during summer 2013
Description: I assisted a senior engineer to modify a valve (in order to reduce production costs) and I wrote reports on experiments made to assess the durability and reliability of a specific model of servo-control (a hydraulic component that transmits the signal from the cloche to the plane of rotation of the helicopter blades).

PHYSICS SCHOOLS & CONFERENCES ATTENDED

MITP 2018 Summer School 15 July - 3 August 2018
Mainz Institute for Theoretical Physics

Amplitudes 2017 Summer School 3-7 July 2017
University of Edinburgh - Higgs Centre for Theoretical Physics

47th British Universities Summer School in Theoretical Elementary Particle Physics (BUSSTEPP)
University College London 21 August - 1 September 2017

COMPUTER SKILLS

My PhD project involves extensive programming in Python. I also have a fair experience with a number of other programs, such as: LaTeX, Origin, Office, C and C++, Mathematica, TurboPascal, AutoIt and some notions of Flash and Dreamweaver.

PUBLICATIONS

MPhys research project write-up (title: *The CHY formalism for massless scattering*) available upon request.

LANGUAGES

Italian - Mother language.
English - C2 - Undergraduate and graduate institution language. TOEFL (102/120) taken in 2011
French - A2 - (Intensive course at Institut Francais in Milan during summer 2014)

DRIVING LICENCE

Cars and small motorbikes (Patente B)

ACADEMIC INTERESTS

My main academic interests are in high energy particle physics, especially regarding the fundamental forces, symmetries, symmetry breaking processes and beyond standard model theories. I'm also interested in astro and solid state physics, space travel and exploration, some topics of pure mathematics, finance, decision making and machine learning.

My PhD research focuses on precision prediction for standard model processes at particle colliders. Currently, I am working on obtaining analytical results for high multiplicity processes in QCD at one-loop. This is done by analysing numerical spinor helicity amplitudes from BlackHat [arXiv:0803.4180].

FURTHER INTERESTS

My other interests are mainly related to gaming, science fiction, computer science and travelling. In particular, I assembled my own high-performance desktop and programmed an AI able to play a browser game

by itself. Another hobby I have, for instance, is doing puzzles, the largest one I did barely falling short of 10.000 pieces.

As far as travelling is concerned, I've travelled extensively through Europe, North and Central America; I've also visited Turkey and some countries in North Africa.

Citing Huygens, *The world is my country, science is my religion.* ¹

¹The attribution is disputed.