## CURRICULUM VITAE

# Giuseppe De Laurentis

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Last-year quantum-field-theory PhD student at the Institute for Particle Physics Phenomenology (Durham University), previously awarded an Integrated Master in Physics (MPhys) from the University of Oxford, with a skill-set on the boundary between physics, mathematics and computer science, and varied international experiences across Europe and the United States, seeks a postgraduate research position.

#### HIGHER EDUCATION

- PhD in Particle Physics Phenomenology Durham University Oct. 2016 Mar. 2020 (Expected)
   Institute for Particle Physics Phenomenology
   STFC Scholarship Supervisor: Daniel Maitre
- Integrated Master Degree in Physics First Class Oxford University Oct. 2012 Sept. 2016
   Major Options Theoretical and Particle Physics Winton Capital Prize
   Qualifying examinations Passed with Distinction Title of Scholar
- o Courses at Harvard University & Stanford University Summer Terms 2011 & 2012 Classical Physics (Mark: A), Calculus (Mark: A+), Introduction to Statistics (Mark: A)

### ADDITIONAL EDUCATION & EXAMS

 $\circ$  GREs: General - Percentile: 95° (in 2 of 3 sections); Physics - Percentile 87° 2015

o SATs Maths 2 and Physics - Full Marks 2011

o SUMaC - Stanford University Mathematics Camp Summer 2009

o Earlier info available upon request

## **PUBLICATIONS**

• Analytical amplitudes from numerical solutions of the scattering equations (arXiv)
Giuseppe De Laurentis

Extracting analytical one-loop amplitudes from numerical evaluations (JHEP, arXiv)
 Giuseppe De Laurentis, Daniel Maitre

The CHY formalism for massless scattering (link, Unpublished Master Thesis)
 Giuseppe De Laurentis - Supervisor: Yang-Hui He
 Best Physics Master Thesis at Oxford University in 2016

### AWARDS

o Nick Brown Memorial Award at Durham University (Travel Grant) 2019

o Winton Capital Prize for the best MPhys Research Project at Oxford University 2016

# TALKS GIVEN AT CONFERENCES

- $\circ~\mathbf{QCD@LHC~2019}$  Buffalo, NY Analytical amplitudes from numerical evaluations (indico)
- o YETI 2019 Durham, UK Numerical to analytical amplitudes (indico)

## **TEACHING**

3rd Year Foundations of Physics 3A - Teaching assistant
 Durham University - Department of Physics

2018 to 2020

• 3rd Year Mathematical Workshop - Teaching assistant Durham University - Department of Physics 2016 to 2018

#### ORGANISATIONAL EXPERIENCE

 $\circ~\mathbf{YTF}~\mathbf{11}~\&~\mathbf{YTF}~\mathbf{12}$  - organising committiee

2019 & 2020

Conference for early stage researchers in high energy particle physics - indico YTF11, YTF12

o Computing club - organiser

2017 to 2020

Weekly lunch-time seminars on computational methods and tools - website

### PHYSICS SCHOOLS ATTENDED

o QCD Master Class

9 - 22 June 2019

Saint-Jacut-de-la-Mer - France

o MITP 2018 Summer School

15 July - 3 August 2018

Mainz Institute for Theoretical Physics - Germany

• Amplitudes 2017 Summer School

3 - 7 July 2017

University of Edinburgh - Higgs Centre for Theoretical Physics - United Kingdom

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

### INDUSTRY EXPERIENCE

o Internship at Mecaer Aviation Group

Summer 2013

I assisted a senior engineer to modify a valve and I wrote reports on experiments made to assess the durability and reliability of a servo-control model (it transmits the cloche signal to the helicopter blades).

#### **SKILLS**

- Python (open source libraries: lips, seampy)
- ∘ C/C++ & CUDA
- ∘ GitHub, IATEX, Mathematica, Office, Origin, TurboPascal, AutoIt
- $\circ$  Italian Mother tongue
- $\circ~\mathbf{English}$  Bilingual
- o French A2
- o Driving licence Patente B Cars and small motorbikes

### ACADEMIC INTERESTS

- o Standard Model phenomenological prediction
- Fixed order scattering amplitudes
- o Differential observables at colliders
- o Please see the Research Statement document for more information

### FURTHER INTERESTS

- o Travelling I travelled through Europe, North and Central America and briefly Turkey and North Africa
- o Computer science As a teenager, I have assembled my own high-performance desktop
- $\circ\,$  Gaming I programmed an AI able to play an international browser game autonomously
- Classical and medieval history
- Science fiction
- o Bonsai