CURRICULUM VITAE

Giuseppe De Laurentis

- ***Academic Email*** giuseppe.de.laurentis@physik.uni-freiburg.de
- ***Skype Contact*** giuseppe_dela
- ***Personal Website*** https://gdelaurentis.github.io/
- ***Nationality*** Italian

EMPLOYMENT

- **PostDoc - Physikalisches Institut - Albert-Ludwigs-Universität Freiburg** 2020 - 2022
  Research group of Harald Ita - Theoretische Teilchenphysik

HIGHER EDUCATION

- **PhD - Institute for Particle Physics Phenomenology - Durham University** 2016 - 2020
  STFC Scholarship - Supervisor: Daniel Maitre
- **Master Degree in Physics (MPhys) - First Class - Oxford University** 2012 - 2016
  Theoretical and Particle Physics - Winton Capital Prize for Best 2016 MPhys Thesis
- **Selected Courses at Harvard University & Stanford University** Summer Terms 2010 - 2011
  Classical Physics (Mark: A), Calculus (Mark: A+), Introduction to Statistics (Mark: A)

PUBLICATIONS

- **The pp $\to$ W($\to$ lν) + γ process at next-to-next-to-leading order** (JHEP, arXiv) 2021
  John M. Campbell, Giuseppe De Laurentis, R. Keith Ellis, Satyajit Seth
- **Two-Loop Five-Parton Leading-Colour Finite Remainders in the Spinor-Helicity Formalism**
  Giuseppe De Laurentis, Daniel Maitre (JHEP, arXiv) 2020
- **The one-loop amplitudes for Higgs + 4 partons with full mass effects** (JHEP, arXiv) 2020
  Lucy Budge, John M. Campbell, Giuseppe De Laurentis, R. Keith Ellis, Satyajit Seth
- **Analytical amplitudes from numerical solutions of the scattering equations** (JHEP, arXiv) 2019
  Giuseppe De Laurentis
- **Extracting analytical one-loop amplitudes from numerical evaluations** (JHEP, arXiv) 2019
  Giuseppe De Laurentis, Daniel Maitre

THESES

- **Numerical techniques for analytical high-multiplicity scattering amplitudes** (Durhem eThesis) 2020
  Giuseppe De Laurentis - Supervisor: Daniel Maitre
- **The CHY formalism for massless scattering** (link to PDF, Unpublished Master Thesis)
  Giuseppe De Laurentis - Supervisor: Yang-Hui He - Best 2016 MPhys Thesis at Oxford 2016

AWARDS

- **Nick Brown Memorial Award at Durham Univeristy** (Travel Grant) 2019
- **Winton Capital Prize for the best MPhys Research Project at Oxford University** 2016

CONFERENCE TALKS

- **QCD@LHC 2019** - Buffalo, NY - Analytical amplitudes from numerical evaluations (indico)
- **YETI 2019** - Durham, UK - Numerical to analytical amplitudes (indico)

TEACHING

- **Teaching Assistant & Senior Teaching Assistant - Theoretische Physik I & II** 2020 - 2021
  Albert-Ludwigs-Universität Freiburg - Physikalisches Institut
- **Teaching Assistant - Mathematical Workshop & Foundations of Physics 3A** 2016 - 2020
  Durham Univeristy - Department of Physics

ORGANISATIONAL EXPERIENCE

- **YTF 11 & YTF 12** - organising committiee 2019 & 2020
  Conference for early stage researchers in high energy particle physics - indico YTF11, YTF12
- **Computing club** - organiser 2017 to 2020
  Weekly lunch-time seminars on computational methods and tools

PHYSICS SCHOOLS ATTENDED

- **QCD Master Class** June 2019
  Saint-Jacut-de-la-Mer - France
- **MITP 2018 Summer School** July - August 2018
  Mainz Institute for Theoretical Physics - Germany
- **Amplitudes 2017 Summer School** 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 August - September 2017

INDUSTRY EXPERIENCE

- **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, syngular)
- **C/C++ & CUDA**
- **GitHub, LaTeX, Mathematica, Office, Origin, TurboPascal, AutoIt**
- **Italian** - Mother tongue
- **English** - Bilingual
- **French & German** - Elementary
- **Driving licence** - Patente B - Cars and small motorbikes

ACADEMIC INTERESTS

- **Standard Model phenomenological prediction**
- **Fixed order scattering amplitudes via numerical unitarity**
- **Number-theoretic and algebro-geometric methods for physics computations**
- **Please see the Research Statement document for more information**

FURTHER INTERESTS

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