

# LorenzoSperi

## **Physics Student**

# **Education**

#### 2015 - 2018 Bachelor's Degree in Physics

University of Trento

# Date of birth 26/01/1996

San Pietro in Cariano,

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## First year

Physics I: Newtonian Mechanics and Thermodynamics 30/30

Calculus I: 29/30Calculus II: 28/30Linear Algebra: 18/30Computer Science: 24/30

• Physics Laboratory I: Statistics and Error analysis 30/30 cum laude

#### Second year

• Physics II: Electromagnetism 27/30

• Physics III: Electrodynamics and Special Relativity 28/30

Calculus III: 30/30

· Geometry and Linear Algebra: 18/30

 Analytical mechanics: Lagrangian and Hamiltonian Mechanics 30/30 cum laude

Chemistry with laboratory exercises: 28/30

• Mathematical Methods for Physics: 30/30 cum laude

• Experimental Physics II: Electronic and Optics 27/30 cum laude

Third year at University of Oslo as an exchange student

· Computational Physics: A

· Experimental Methods in Condensed Matter: A

· Quantum Mechanics: B

Nuclear and Particle Physics

Condensed Matter

· Statistical Mechanics

# **GitHub** github.com/lorenzsp

### **About me**

I am a physics student who is eager to learn more about theoretical physics and its applications. My approach to the study is based on using mathematical insight into theory combined with experimental evidence to solve problems. I consider numerical simulations a crucial resource to analyze and understand physical models and theories.

#### 2010 - 2015 High School Diploma

Liceo Scientifico Primo Levi

University of Padova

Final score:96/100.

I participated to the Mathematical Olympiad in 2013, 2014, 2015

09/2014 Discovering high-mass particles with CMS

The purpose of the workshop was to estimate the mass of the Z boson, using basic experimental particle physics and data analysis.

# **Work Experience**

#### 2014-2017 **Private Tutor**

I have been employed as a private tutor to high school age students. To be an effective tutor I have learned how to approach students with varied learning styles for math and physics subjects. From my experience working with students, I have learned that listening to the student is crucial. Also, I found that relating the problems to everyday life showed the importance of the subject matter. As a result, the students became motivated to complete and develop an appreciation for physics and mathematics.

# **Computer Skills**

#### Microsoft Office

I have used all Microsoft Office programmes since High School

C/C++

I wrote several programmes for academic purposes in physical modelling and simulations

#### Matlab

I wrote scripts for data analysis, and I used Matlab to make scientific plots and animations based on numerical simulations

#### LATEX

I wrote all my scientific papers in LATEX

#### Cactus and EinsteinToolkit

I have recently started using Cactus Framework and EinsteinToolkit for numerical relativity

### **Honors & Awards**

2018 ERASMUS+ scholarship

10 months scholarship to study abroad in Oslo

2014 Workshop: Discovering high-mass particles with CMS

A 5 day workshop with all expenses paid for food, housing, and tuition

Tti School of English, London

## **Certifications**

02/2018 **TOEFL iBT** 

Score 95/120

07/2014 Certificate of English

B2

# Other skills

I have played piano for ten years. I have played rugby for six years. I also love swimming, skiing and travelling. I have studied Latin for five years in High School.

## Other Info

At the GitHub address it is possible to find scans of my certifications, articles I wrote and a more complete description of the activities of the workshop *Discovering high-mass particles with CMS*.