# Abel Doñate Muñoz

Fourth year (Polytechnic University of Catalonia) Mathematics & Engineering Physics UPC, Barcelona

## Education

#### 2020-TODAY

**Degree on mathematics** Polytechnic University of Barcelona (UPC) Catalonia, Spain

2020-TODAY Degree on engineering physics Polytechnic University of Barcelona (UPC) Catalonia, Spain

## Skills

Programming languages C++/C# Intermediate Python Intermediate LaTeX Advanced MatLab Basic

Graphic DesignInkscapeIntermediateGIMPIntermediate3D-DesignBasic

#### Languages

Spanish Native English Cambridge First (B2 in EU)

#### Aptitudes

- Great ability to focus on a project
- Autodidact
- Deep interest in knowledge

#### Hobbies

- Music (professional studies in

conservatory of trumpet and piano)

- Sports (tennis and running)
- Reading philosophy, history and music

### Experience

- 2022, JULY Research stay in CRM Research on Coxeter Matroids during a stay in CRM (Centre de Recerca Matemàtica) during Barcelona Introduction to Mathematical Research (lecture here)
- 2022-2023 Fellow intern of the subject of computer science Work as fellow intern in the subject of computer science in the degree of mathematics
- 2023 **Readings on Connective Constant in regular lattices** Reading of papers and development of techniques guided by a professor of Polytechnic University of Catalonia on the connective constant of regular lattices.

#### 2023, SUMMER Research stay in ICMAT

Research on Bounded cohomology of groups and quasimorphisms during a stay in ICMAT (Instituto de Ciencias Matemáticas) with a JAE-INTRO scholarship. (lecture here)

## Awards and recognitions

- 2020 **Gold medal in Spain's Physics Olympiad** National competition held annually in Spain for students of 17-18 years old.
- 2020 Silver medal in Ibero-American Physics Olympiad International competition held annually for Spanish speakers students (Spain and Latin America) of 17-18 years old.
- 2020 Participation in Spain's Mathematics Olympiad National competition held annually in Spain for students of 17-18 years old.

## Scholarships

#### 2020-TODAY Full Degree Scholarship (Mathematics)

Full scholarship granted by the Interdisciplinary Higher Education Centre at the Polytechnic University of Cata-Ionia for the whole degree.

2020-TODAY Full Degree Scholarship (Engineering Physics) Full scholarship granted by the Interdisciplinary Higher Education Centre at the Polytechnic University of Cata-Ionia for the whole degree.

#### 2020-TODAY Residence Scholarship

Full residence scholarship granted by the Interdisciplinary Higher Education Centre at the Polytechnic University of Catalonia while studying the degrees.