# **TANGUY MARSAULT**

00/12/2002

Student at CentraleSupélec Saclay (Paris) in gap year



## **EXPERIENCES**



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Gif-Sur-Yvette, 91190, France

#### **SKILLS**

## **Physics**

Quantum Mechanics Quantum Field Theory General relativity Condensed Matter Gauge theory Basics of string theory

#### **Mathematics**

Statistics Group theory Differential geometry

#### **Programming**

Python
Basics of C++
ROOT

### **LANGUAGES**

English C1 level - Fluent Spanish B2 level French-native speaker

## **QUALITIES**

Fast learner
Curious & Enthusiastic
Creative
Efficient
Team Spirit

February 2023-Now

Intern in Particle Physics in the FTX group at DESY

Working on detector physics for the LEAP experiment. LEAP is an experiment which aims to produce a polarized electron beam using laser plasma acceleration. Working specifically on the calorimeter used to measure polarization. Supervised by PhD Louis Helary.

July 2022-December 2022

Intern in Particle Physics at CEA-Saclay, France

Probing the CP nature of the Yukawa coupling in the ttH analysis for the Atlas experiment. Working with several PhD students, Post-Docs and permanent researchers, supervised by Frédéric Déliot and Matthias Saimpert.

Developped skills: QFT, group theory, data analysis, MC simulations

September 2021-June 2022

Teaching Assistant in Mathematics at CentraleSupélec

Reinforcement classes with foreign students in mathematics at CentraleSupélec, Université Paris-Saclay, First university in mathematics worldwide according to the Shanghai ranking

April 2020-September 2022 CentraleSupélec Chess Club President & Coach

20 members, weekly training sessions, online training and tournaments with other schools

Leader of the competition team for the "Ligue Ingénieure Française d'Echecs" (LIFE)

Novembre 2022

Synchrotron beamline design

Design of a synchrotron beamline over a week with a team of 20 students supervised by PhD P.E. Janolin,, PhD Y. Dabin and PhD S. Sharma

## **EDUCATION**

2021-Now

Second year of engineering at CentraleSupélec

School of engineering, member of Université Paris-Saclay Topics : Advanced QM, Particle physics, GR, Optimization

Grade of 17/20, GPA: 4

2020-2021

First year of engineering at CentraleSupélec

School of engineering, member of Université Paris-Saclay Topics: Measure theory, PDE, Statistics, EM, QM

Grade of 17/20, GPA : 4

2018-2020

Lycée Stanislas, Paris

CPGE (Classe préparatoire aux grandes écoles) in mathematics and physics

## **INTERESTS**

- Chess: Player & Teacher (DIFFE certified & 1980 FIDE rating)
- Sports: Table tennis, badminton, tennis, running
- Other: Theoretical physics (quantum field theory), New technologies (quantum engineering), Artificial Intelligence