# **MARZIA CUCCU**

Italian — Native English — Good

Spanish — Basic

#### **EDUCATION**

Master Degree, Physics, Sapienza University of Rome — July 2021 Grade: 110/110 cum laude

Thesis title: "Fabrication and optical spectroscopy of two-dimenisional van der Waals heterostructures" —  $\underline{\text{link}}$  to full text

Experimental techniques: Photoluminescence, photoluminescence excitation, time resolved photoluminescence, two-dimensional transfer (fabrication).

Advisors: Prof. Antonio Polimeni, Elena Blundo

Bachelor Degree, Physics, Sapienza University of Rome — January 2018 Grade: 100/110

Dissertation title: "Diffrazione nei cristalli" ("Diffraction in crystals")

Advisor: Prof. Carlo Mariani

**High School Diploma, Liceo Statale B. Russell, Rome** — **June 2013** Liceo specializing in scientifical studies

## LABORATORY EXPERIENCE

## Sapienza University of Rome — July 2018

Title: "Photoluminescence study of wurtzite InAs quantum dots in wurtzite InP nanowires"

Topics: We studied a forest of InP nanowires containing InAs quantum dots. We attempted to characterize the quantum dot energy levels performing photoluminescence measurements. Experimental techniques:

Photoluminescence

Advisors: Prof. Antonio Polimeni, Prof. Marco Felici

## **COMPUTER SKILLS**

Programming: C

Operative Systems: Windows, Mac OS

Scientific software: Origin, Lightfield, Latex, Microsoft Office Package

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## **EXAMS — MASTER DEGREE**

- Condensed Matter Physics
- Non linear and Quantum Optics
- Physics Laboratory I
- Physics Laboratory II
- Relativistic Quantum Mechanics
- Statistical Mechanics and Critical Phenomena

- Atomistic Simulations
- Solid State Physics
- Surface Physics and Nanostructures
- Mathematical Physics
- Spectroscopy Methods and Nanophotonics
- Many Body Physics

#### **EXAMS — BACHELOR DEGREE**

- Analysis I
- Geometry
- Introduction to Programming
- Classical Mechanics Laboratory
- Classical Mechanics
- Chemistry
- Computational Physics Laboratory
- Thermodynamics and Thermodynamics Laboratory
- Analysis II
- Electromagnetism and Electric Circuits Laboratory
- Relativistic Mechanics

- Mathematical Models and Methods for Physics
- Electromagnetism
- English Language I
- Signals and Systems Laboratory
- Optics and Optics Laboratory
- English Language II
- Quantum Mechanics
- Atmosphere Physics
- Statistical Mechanics
- Nuclear and Subnuclear Physics I

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