

Alessandro Porcelli

Nationality: Italian



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EDUCATION AND TRAINING

Master's Degree in Physics

University of Pisa [21/10/2015 – 10/12/2020]

Address: Lungarno Antonio Pacinotti, 43, 56126 Pisa

www.unipi.it

Field(s) of study: Photonics

Final grade : 110 - **Level in EQF :** EQF level 7

Thesis : Laser Trapping of a Dielectric Microsphere in a Photonic Crystal Fiber

Research and development of an opto-mechanical temperature sensor, analytical and numerical simulation of optical waveguide modes and optical forces through Wolfram Mathematica and COMSOL Multiphysics, laser wavefront control through liquid crystal spatial light modulators and digital micromirror devices

Bachelor's Degree in Physics

University of Pisa [27/09/2010 – 20/10/2015]

Address: Lungarno Antonio Pacinotti, 43 , 56126 Pisa

www.unipi.it

Final grade : 91 - **Level in EQF :** EQF level 6

Thesis : Raffreddamento Laser dei Solidi (Laser Cooling of Solids)

Anti-Stokes fluorescence-based cooling of rare-earth doped crystals.

High school Diploma

Liceo Scientifico "E. Majorana" [01/09/2004 – 09/07/2010]

Address: Via Sezze SNC, 04100 Latina (Italy)

Final grade : 97 - **Level in EQF :** EQF level 4

DIGITAL SKILLS

Operating systems

Debian Linux / Microsoft Windows

Programming

Programming C / Arduino Programming / Wolfram Mathematica

Office applications

Microsoft Word / Microsoft Office / Outlook / Microsoft Powerpoint

Numerical simulations

Comsol Multiphysics

Other

Skype / Google Drive

LAB SKILLS

Lab experience

Design and setup of optical systems, laser wavefront shaping through diffractive spatial light modulators, usage of oscilloscopes and lock-in amplifiers for signal analysis, familiarity with consumer-grade DIY electronics (Arduino, Raspberry PI).

Data analysis

Familiarity with time domain and frequency domain analysis through Wolfram Mathematica.

LANGUAGE SKILLS

Mother tongue(s):

Italian

English

LISTENING: C1 READING: C1 WRITING: C1

SPOKEN PRODUCTION: C1

SPOKEN INTERACTION: C1

German

LISTENING: A2 READING: A2 WRITING: A2

SPOKEN PRODUCTION: A2 SPOKEN INTERACTION: A2

Spanish

LISTENING: A2 READING: A2 WRITING: A2

SPOKEN PRODUCTION: A2 SPOKEN INTERACTION: A2

CONFERENCES AND SEMINARS

Photonics Online Meetup

[INFN Pisa, 13/01/2020]

POLKA Mid-Term Review Meeting

[Keele University - Online, 12/03/2020 – 13/03/2020]

PROJECTS

POLKA

[01/09/2019 – Current]

External collaborator to the POLKA (POLlution Know-how and Abatement) project, through the development of the ideas behind an opto-mechanical temperature sensor suitable for application in hydrogen combustion engines.

EXAMS TAKEN

Laboratorio di Ottica Quantistica

[17/03/2016]

Mark: 27

Fisica Teorica 1

[04/11/2016]

Mark: 28

Astrofisica A

[20/07/2017]

Mark: 30

Struttura della Materia 2

[08/09/2017]

Mark: 28

Ottica Atomica

[02/03/2018]

Mark: 30L

Ottica Quantistica

[16/03/2018]

Mark: 30

Elettronica e Sensori

[02/10/2018]

Mark: 27

Fisica dello Stato Solido

[02/10/2019]

Mark: 26

Elaborazione dei Segnali per la Fisica

[19/11/2020]

Mark: 27