



Curriculum Vitae

Informazioni personali/

Personal Information

Nome e Cognome / Name and Surname **Andrea Marchese**

Genere / Gender Maschio

Esperienze professionali/

Work Experiences

01/12/2023 - 31/05/2024 Datrix S.p.A.

Full stack development of hyperspectral cube data analysis software (<https://ramapp.io/>) and grant proposal writing for R&D data science projects.

01/10/2021 - 31/10/2023 Universitat de Barcelona

European collaboration aimed to develop imaging tools with high spatio-temporal resolution to observe heart-mimicking living tissues. I illuminated an object with multiple flickering lights using acousto-optic deflectors and radiofrequencies, and used Fourier analysis to reconstruct the image of the object at kHz rates (Nanophotonics 13(1):63-73)

Istruzione e formazione/

Education and Training

01/09/2015 - 15/07/2021 Ph.D. in condensed matter physics at HFML-FELIX- Radboud University - "Electron

cyclotron resonance in plasmas using intense THz radiation". Free electron lasers (FELs) are particle accelerators used to produce intense infrared electromagnetic radiation for experiments. Combined with ultra strong magnets (up to 33 T), they allow us to study materials under unique conditions and explore new states of matter. During my Ph.D., I coordinated some of the first experiments ever done that combined FELs and ultra strong magnets. I designed and developed an experimental setup for optics experiments over a wide range of wavelengths (from far-infrared to UV light), combining waveguides, optical fibers, cryogenics and vacuum components.

01/10/2008 - 29/06/2015 Bachelor and Master degree in Physics - Experimental condensed matter thesis: "Optical and

Terahertz properties of Dirac materials". A study of semiconductors with novel electronic properties using Fourier transform infrared spectroscopy, synchrotron radiation and intense magnetic fields at cryogenic temperatures. The measurements were performed at different international institutes/user facilities: Sapienza Terahertz - University of Rome IRIS THz/ Infrared Dipole Beamline of BESSY II Synchrotron, Helmholtz Zentrum, Berlin. HFML at the Radboud University, Nijmegen

Competenze personali/ Personal Skills

Lingua madre / Mother tongue Italian

Altre lingue / Other languages * Livello / Level *

English C2 - Fluente

Dutch A2 - Elementare

Spanish A2 - Elementare

* Autovalutazione / Self-assessment: [Quadro Comune Europeo di Riferimento delle Lingue](#) / [Common European Framework of Reference for Languages](#)

Altre competenze/ Other Skills

Altre competenze / Other skills

Patente di guida / Driving licence A2 A B

Ulteriori informazioni/ Additional Information

Sito personale / Personal web <https://www.linkedin.com/in/andrea-marchese/>
pages

Ulteriori Informazioni / Additional
Info