

# MARTIN SKËNDERAS

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📍 Belgium



## WORK EXPERIENCE

### PhD Researcher

**Brussels Photonics (B-Phot), Vrije Universiteit Brussel**

📅 October 2019 – Present

📍 Brussels, Belgium

- Theoretical and Experimental study of the nonlinear dynamical behavior of semiconductor lasers subjected to distributed feedback from fiber Bragg gratings (FBG).
- Design and characterization of monolithically integrated tunable lasers and integrated photonic circuits in the InP platform.
- Design and fabrication of specialty grating profiles.
- Master thesis supervision for the students of Photonics Engineering program.

### Intern

**ICFO - The Institute of Photonic Sciences**

📅 July 2019 – September 2019

📍 Barcelona, Spain

- Intern in the Optoelectronics group working on the topic: "Time-of-flight (ToF) sensing applications using quantum illumination and quantum detection."

### Junior Researcher

**Institute of Applied Nuclear Physics, University of Tirana**

📅 November 2016 – September 2017

📍 Tirana, Albania

- Estimating the standard of Ionizing Radiation in Albania and provide the necessary link in traceability of radiation dosimetry to international standards
- Calibration of dosimeters at the national level
- External quality audits of dosimetry in radiotherapy centres
- Preparation of protocols and recommendations on dosimetry in radiotherapy.

## EDUCATION

### PhD in Engineering Sciences

**Brussels Photonics (B-Phot), Department of Applied Physics and Photonics (TONA), Vrije Universiteit Brussel (VUB)**

📅 October 2019 - Present

Thesis title: Study of nonlinear dynamics of laser diodes for optical fiber sensing.

This research aims at developing the world-first fibre Bragg grating interrogator using an integrated semiconductor laser.

### European Master of Science in Photonics

**Vrije Universiteit Brussel & Ghent University**

📅 September 2017 - June 2019

## STRENGTHS

Lasers

Nonlinear Dynamics

Photonics

Nonlinear Optics

Quantum Mechanics

Material Physics

Solid-State Physics

Hard-working

Team Player

Eye for detail

Motivator & Meet deadlines

Octave/MATLAB

Interconnect/ Lumerical

Optodesigner

OptSim

Advanced Systems Analysis Program (ASAP)

Microsoft Office package

## LANGUAGES

Albanian



English



Spanish



French



## SOCIAL ACTIVITIES

- October 2020-Present: President of B-PHOT Student Chapter.  
B-Phot Student Chapter is a non-profit student organization affiliated to VUB as a joint representation of the optical societies SPIE and OSA.
- October 2017-October 2020: Member of SPIE Student Chapter.
- September 2018-September 2019: Class representative for the international students of the European Master of Science in Photonics program at VUB.

## MY LIFE PHILOSOPHY

*"Mind is a flexible mirror, adjust it, to see a better world."*

Thesis title: Control of a widely-tunable ring laser based on cascaded Mach-Zehnder interferometers.  
Step-like tuning investigation of a widely tunable novel ring-laser for applications in fibre sensing.  
(Cum laude - With distinctions)

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## M.Sc. in Physics

**University of Tirana**

📅 November 2014 - July 2016

Thesis title: Reionization era and its exploration through THESUES project  
Using Gamma Ray Bursts as an observation method to study reionization and estimating the possible detection of GRB distribution based on THESEUS satellite.  
(9.23/10)

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## B.Sc. in Physics

**University of Tirana**

📅 October 2011 - October 2014

Theoretical and practical skills in General and Theoretical Physics.  
(8.26/10)