



**Katia VERBEKE**  
26 years old  
French

## Contact

Phone number : +33 6 71 92 54 84  
katiaverbeke@orange.fr  
linkedin.com/in/katia-verbeke-128b6b193  
10 rue de Mérignac  
33000 Bordeaux

## Personal commitments

- 2021: Administration member of the EIDD Bureau des Jeux
- 2020 -2021: Event unit supervisor of the EIDD student council

## Languages

- Fluent french
- English C1, TOEIC : 910
- Russian: Basic communication skills

## References

References available on request.

## Interests

- Sport: Vovinam Viet Vo Dao (five years of practice)
- Astronomy: Kourou (Guyane) space agency visit, Floirac (France) Observatory visit
- Aeronautics: Aeronautics Initiation Certificate
- Travel: Guyane, Japan, Italy, Spain

I am searching for a Post Doctoral position related to space science.  
I am curious and dynamic. I have experience in cold atom physics for atom interferometry used in gravitational waves detection.

## Education / Qualifications :

- **PhD: ADVANCED ATOM GRADIOMETRY IN AN OPTICAL CAVITY**  
Institut d'Optique Graduate School, Laboratoire Photonique, Numérique et Nanosciences, Bordeaux • 2023  
Elaboration of an atom interferometry test bench system to detect gravitational waves
- **ENGINEERING SCHOOL: MATERIALS AND NANOTECHNOLOGY**  
École d'Ingénieurs Denis Diderot (EIDD), Paris • 2019-2022  
Study of matter from atomic to macroscopic scale
- **PREPARATORY SCHOOL IN PHYSICS AND CHEMISTRY**  
Lapérouse high school, Albi • 2016 - 2019
- **COAUTHOR** in the article 'Picosecond acoustics: a new way to access elastic properties of materials at pressure and temperature conditions of planetary interiors", Silvia Boccato, Physics and Chemistry of Minerals, **Springer Nature, 2022**

## Work experiences :

**Teacher** for the INSTITUT D'OPTIQUE GRADUATE SCHOOL

- 40 hours of **teaching, leading a project** aiming to elaborate a telemeter

**Quality engineer** at SAFRAN ELECTRONICS & DEFENSE (ALTEN)  
Massy, 2022-2023

- **Monitoring and directing** compliance with standards for **aeronautical** systems

**ARIANEGROUP**

Physico-chemical analyses service, St Médard en Jalles, 2022

- **Project management: development of new physico-chemical analyses methods**, for the defense domain.  
I developed three new methods allowing to analyze **kinetics** and **purity** of components.

**INSTITUT DE MINÉRALOGIE, DE PHYSIQUE DES MATÉRIAUX ET DE COSMOCHMIE**

Team Minéralogie, Pétrologie et Physique Planétaire, Paris, 2021

- Study of materials properties at **extreme thermodynamic conditions**, reproducing **planetary interiors** to discover their composition.  
I developed a **new experimental** technique, allowing to combine **picosecond acoustics** to high pressure and high temperature.

**LABORATOIRE FEMTO-ST**

Micro Nano Sciences et Systèmes département, Montbéliard, 2020

- Study of matter at **nano and atomic scale**, helped by a Scanning Tunneling Microscope and an **Atomic Force Microscope** (AFM).

## Skills :

**SOFTWARE:** C language, Python language, Mathematica, Matlab, Microsoft office

**THEORETICAL:**

- **Quantum physics** used for **atom interferometry, quantum chemistry**
- **Optics, nano-optics**
- **Laser science**
- **Gradiometry systems**
- **Metrology: Interferometric systems configurations**

**TECHNICAL:**

- **Laser manipulation**
- **Electronics:** analyses, **soldering**
- Opto-electronics circuit establishment as **radio frequency chain**
- Characterization: Atomic Force Microscope
- **Team spirit: lead a group / be a part of a group**