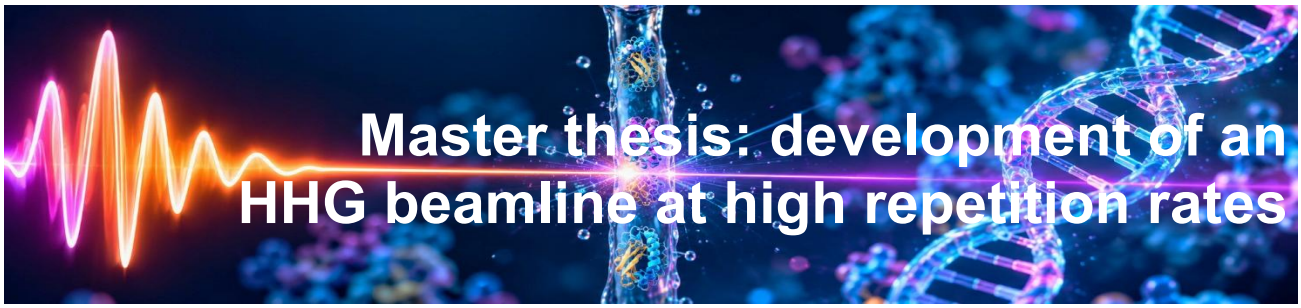


The 2023 Nobel Prize in Physics recognized pioneering work on attosecond light pulses, which enable the study of electron dynamics. These pulses are typically generated through high-order harmonic generation (HHG), although most beamlines operate at relatively low repetition rates (1–10 kHz). In this Master's thesis, you will contribute to developing a novel high-repetition-rate HHG beamline.

⚙️ What will you do?

Working closely with experienced researchers, you will gain hands-on experience in experimental physics and advanced laser technology. Your activities will include:

- Design and develop a novel beamline for high-repetition-rate HHG generation.
- Build and optimize the optical setup, working with advanced laser and XUV optics.
- Explore experimental parameters and investigate how they influence the properties of the generated XUV pulses.

You will be actively involved in the experimental work, from setting up the apparatus to acquiring and analyzing scientific data.

🧑‍🔬 What are we looking for?

We are looking for a motivated and curious Master's student who:

- Is willing to learn, is creative, and has fun in the laboratory!
- Has a good academic background in physics or nuclear engineering, or related fields.
- Enjoys hands-on experimental work and solving technical challenges.

💡 What do we offer you?

An excellent opportunity to develop valuable experimental skills while contributing to cutting-edge research.

- Hands-on experimental experience, developing practical skills that are highly valued in both academia and industry.
- Cutting-edge multidisciplinary research at the intersection of advanced laser sources, few-cycle laser physics, XUV optics, pulse metrology, vacuum technology, and charged-particle detection.
- A dynamic and international working environment.

✉️ Interested? Contact us!

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