

# PhD CONTRACT OFFER

 **Laboratorio de Óptica Visual y Biofotónica**  
**Instituto de Óptica CSIC** <https://vision.io.csic.es/>

A **predoctoral contract** to do the thesis at the **Institute of Optics of CSIC** is offered in the framework of the **PID2023-152641OA-I00** project.

- **Research:** “Construction of eye models and their application”
- **Supervisors:** Dr. Eduardo Martínez, Dr. Lucie Sawides, Dr. Alberto de Castro
- **Project Abstract:** New optical technologies mapping the full 3-D geometry of the eye prior to cataract surgery and custom-based eye models will allow comprehensive surgical planning and simulations of the optical performance of specific solutions in-eye, tuned to the patient’s eye anatomy. Besides, machine learning methods will help to use patient population data to guide the intraocular lens selection.
- **Call:** available shortly in CONVOCA – CSIC
- **Duration of the contract:** 4 years + funding for research stay
- **Gross salary:** 1.600/month (1<sup>st</sup> year), 2.000€/month (2<sup>nd</sup>, 3<sup>rd</sup> & 4<sup>th</sup> year)
- **Deadline to submit an expression of interest:** 15 October 2024
- **Candidates’ requirements:** holding a university degree that gives access to undertake doctoral studies preferably in the fields of Physics, Engineering, Data Science or Applied mathematics.
- **Additional valuable skills:** Basic knowledge of Matlab/Python. General knowledge in statistics, data analysis and machine learning algorithms. Strong motivation in the fields of optics, biomedical applications and experimental work with optical systems applied to the human eye. Ability to face problems and seek solutions autonomously. Excellent oral and written communication skills.

Those wishing to apply are invited to send their **CV and motivation letter** to Nohelia Morales: [nohelia.morales@csic.es](mailto:nohelia.morales@csic.es)