



## XVII Symposium of Lasers and its Applications

📅 11/04/2025 – 11/07/2025 - 08:00 AM - 06:00 PM GMT-3

📍 Departamento de Física - UFPE - Recife - Pernambuco - Brasil



### About

The Symposium of Lasers and its Applications is an annual scientific event promoted by OPTICA Student Chapter-Recife, dedicated to the exposition of ideas and discussions among researchers, professors, students, and professionals interested in the field of Optics. Our main objective is to disseminate the latest techniques involving the use of lasers and their applications in the fields of Physics, Medicine, Communication, among others.

This annual event has been running for more than 10 years and your participation will be more than welcome in this edition celebrating the International Year of Quantum Science and Technology.



## Cristina Kurachi

UFSCar

### Strategies for the Use of Photonic Techniques in Highly Pigmented Tumors

**Abstract:** This talk will address strategies for using photonic techniques in the imaging and treatment of pigmented melanoma. In vivo pretreatment with optical clearing agents has demonstrated improved imaging of the vascular structure via optical coherence tomography, as well as enhanced treatment response with photodynamic therapy in a cutaneous melanoma model. Two-photon excited photodynamic therapy in a uveal melanoma model showed optimized responses in pigmented melanoma cells and tumor eradication while preserving ocular structures. Photothermal therapy proved effective for local treatment of cutaneous melanoma and induced an adaptive immune response in a murine model.

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