Novel instrumentation and applications are allowing the birth of a new generation of applications in optics and photonics. The possibility of changing classical passive lenses for active optical elements, and the capability of controlling them in real-time, yielding optical systems which adapt to dynamical situations, is the central issue of this course. We will review the sensors, active elements and configurations which make this different optics possible. The main technical applications already developed (in visual optics, laser beam optimization, metrology, etc) are reviewed.
Elaboration and defense of a short discussion on a theoretical or applied topic related to an active or adaptive optics application.

- Evaluation results will be based on students' interest and participation in discussions and forums; on the consistency of the discussion held on AO topics; and on the question and answer session following the presentation, with questions made either by the lecturer or by other students.

### Qualification system

Elaboration and defense of a short discussion on a theoretical or applied topic related to an active or adaptive optics application.

### Regulations for carrying out activities

The usual in University teaching
Bibliography

Basic:


Complementary:

