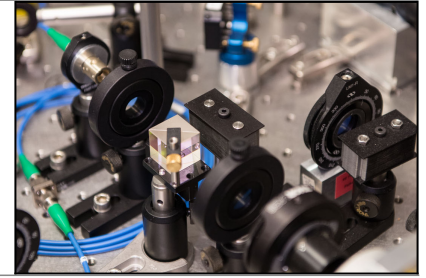


## SC1 | Optomechanics



NIVEAU : BASIC

**Publics :** Engineer or technician in design office, R&D, wishing to get specialized in optomechanics

**Prérequis :** Basic knowledge in optics and mechanics

**Responsable(s) pédagogique(s) :** Sébastien De Rossi - Enseignant-chercheur à l'Institut d'Optique

**Langue de la formation :** French

**Capacité maximum :** 12

**Prix :** 1820€ HT - **Durée :** 4 days - 28 h

### Objectifs

Learn the methods and means to specify, design and characterize an optomechanical system

### Thèmes abordés

Optics

Optical surfaces and mechanical manufacturing

Mechanics

Optomechanics



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## SC1 | Optomechanics

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### Le programme

#### Optics

- ▶ Basics concepts of ray optics
- ▶ Image formation (paraxial approximation)
- ▶ Principles, description and characteristics of the fundamental optical instruments (pupils and stops)
- ▶ Introduction to aberrations
- ▶ Introduction to photometry
- ▶ Optical surface manufacturing; optical metrology

#### Mechanics

- ▶ General mechanics
- ▶ Thermics
- ▶ Mechanical properties of materials
- ▶ Motorization

#### Optomechanics

- ▶ From specifications to the optomechanical definition
- ▶ Stages of optomechanical design
- ▶ Materials
- ▶ Modeling and dimensioning
- ▶ Implementation plan

### Méthodologie et évaluation

General lectures

Tutorials

Optical workshop visit