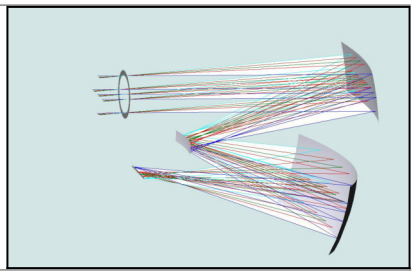
INSTITUT d'OPTIQUE GRADUATE SCHOOL | Continuing Education
Formation Continue

# CO3 | Optical Design with CodeV®



LEVEL: ADVANCED

**Audience:** Engineers who need to design imaging optical systems with the CodeV software

**Prerequisites:** Basic knowledge in geometrical optics (centered systems in paraxial optics, notions of entrance and exit pupils...) and basic notions on the aberrations of real optical systems

**Pedagogical manager(s):** Hervé Sauer - Enseignant-chercheur à l'Institut d'Optique

**Language of the training:** French

**Maximum capacity:** 10

**Price:** 2150€ HT - **Duration:** 5 days - 35 h

## Objectives

- Be able to to use the practical bases of CodeV software
- Analyze optical systems performances
- Optimize optical system using basic methods
- Handle standard imaging optical systems

## Next sessions

- 03 june 2019 au 07 june 2019 - Palaiseau

## Addressed topics

Optical system analysis
Optimization of optical systems with simple or more complex constrains
Introduction to tolerancing
Rough set out of more advanced CodeV features

# CO3 | Optical Design with CodeV®

## The program

Basics and first steps
- Introductory lecture on object/image conjugation, entrance and exit pupils, aberrations, diffraction, ...
- CodeV hands-on workshop with a simple example (Cooke triplet)

Optical systems
- Study of aberrations and optical system quality criteria on different examples
- Setting of mirrors, aspheric surfaces, obscurations, tilts and decenters, multiconfigurations...

More advanced elements and training
- Optimization: basics, methods, and practical tutorial (example of eyepiece design with complex constrains)
- Training tutorial (on a catadioptric system)
- Introduction to tolerancing and some other advanced CodeV options
- Last tutorial subject at the trainee's choice

## Methodology and assessment

Mixed lectures and tutorials in a computer facility room
Example based teaching
Supervised software usage, largely guided at beginning, and more free later when user skills increase



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