



UNIVERSITÀ  
DEGLI STUDI DI MILANO-BICOCCA

## SYLLABUS DEL CORSO

### Photonic Crystals

2223-116R-M9

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#### Title

Photonic Crystals

#### Teacher(s)

Prof. Massimo Gurioli (Università di Firenze)

#### Language

English

#### Short description

1. Elements of electromagnetism
2. Eigenvalue problem in photonics and analogy with quantum mechanics
3. Photonics crystals and photonic bands
4. Negative refraction
5. Point and line defects (cavities and waveguides)
6. Photonics on membranes: high-Q cavities
7. Purcell effect and strong coupling in 3D microcavities
8. Thresholdless laser

**CFU / Hours**

1 CFU/8 hours

**Teaching period**

June 2023

**Sustainable Development Goals**

QUALITY EDUCATION

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