



Module PMRF-ISSS004/III/2026

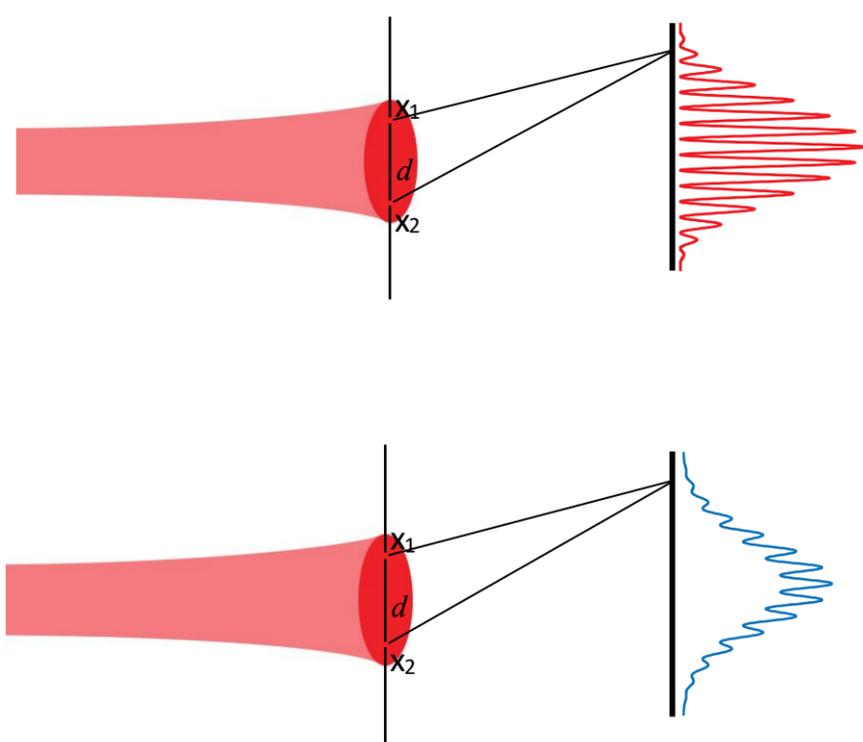
# Optical Coherence - II

## Name of the PMRF student

PRANAY MOHTA

## Required background of the students taught

Anyone with basic undergraduate physics and mathematical physics skills.  
Relevant for Physics and Photonics students



## Details of the content of the module

This series of lectures is designed to cover the advanced concepts of optical coherence theory. Problem-solving sessions are included for better understanding.

List of topics to be covered:

1. Two-point correlation for one-photon field
  - Example with Michaelson interferometer
2. Four-point correlation for two-photon field
3. Two-photon field generation from SPDC process
4. Temporal two-photon interference
5. One-photon interference effects with entangled photons
6. Hong-Ou-Mandel effect, Postponed compensation effect, Induced coherence effect
7. Spatial two-photon interference

## Schedule of the module

**Start Date: 07/02/26**

**End Date: 25/04/26 (tentative) [11 weeks]**

**Lecture timing: Wednesday (19:00—21:00)**

**Saturday (11:30—14:00)**

**Note: The course may get extended by one week. In unforeseen cases, the recorded lectures will be uploaded on time.**

Meeting link : Will be shared later

[Link](#)

Contact email ID: [issf.forum@gmail.com](mailto:issf.forum@gmail.com)

Registration link: [Link](#)