

School on Space-Division Multiplexed Transmission

December 13, 2021

INTRODUCTION

Space-division multiplexing (SDM) is intensively researched as a promising approach to scale the capacity of optical communications in optical fibers and free-space. This school gathers top scientists from around the world to provide PhD students working on the broad area of telecommunications with the main concepts involved in SDM transmission. These range from techno-economic considerations to the design of special fibers, transmitter and receiver schemes, as well as digital signal processing techniques.

The attendance of the school releases 2 credits.

PROGRAM

The school consists of eight seminars that will be delivered online on CNIT GoToMeeting platform. Registration is required.

SESSION I

09:00 "Multi-core fiber technology,"

Tetsuya Hayashi, Sumitomo Electric (Japan)

09:45 "High-capacity SDM transmission in few-mode fibers,"

Georg Rademacher, NICT (Japan)

10:30 "Digital signal processing and spatial coding for SDM transmission,"

Ruben Soares Luis, NICT (Japan)

11:15 "Orbital-angular momentum for SDM in free space,"

Jian Wang, Wuhan National Laboratory for Optoelectronics (China)

SESSION II

15:00 "Scaling the capacities of the global fiber-optic network,"

Peter Winzer, Nubis Communications (USA)

15:45 "Few-mode fiber technology,"

Pierre Sillard, Prysmian Group (France)

16:30 "Designing hero experiments with SDM transmission,"

Roland Ryf, Nokia Bell Labs (USA)

17:15 "Space multiplexing with OAM modes in ring-core fibers,"

Leslie Rusch, University of Laval (Canada)

REGISTRATION

Register by writing to luca.palmieri@cnit.it or cristian.antonelli@cnit.it specifying your name, surname, doctorate program and University.