

# SUMMER SCHOOL ON: MICROWAVES AND mm-WAVES FOR THE DESIGN OF ADVANCED WIRELESS LINKS: COMMUNICATION, SENSING AND POWER TRANSFER

**JUNE 15-20, 2026**  
**UNIVERSITY OF PISA, ITALY**

**PROGRAM AND INFO:**



**THE SUMMER SCHOOL IS INTENDED FOR UNDERGRADUATE, GRADUATE, AND PHD STUDENTS, AS WELL AS PROFESSIONALS, IN ICT AND STEM FIELDS.**

- **TEACHING LANGUAGE: ENGLISH**
- **48 H OF LESSONS WITH FACULTY MEMBERS AND INDUSTRY EXPERTS**
- **HYBRID MODE: ONLINE AND IN-PRESENCE CLASSES**
- **PARTICIPANTS RECEIVE A CERTIFICATE OF ATTENDANCE**
- **6 ECTS GRANTED (REQUIRE PROJECT WORK DUE ON AUGUST 30, 2026)**
- **MAX 50 PARTICIPANTS**

## **FEES**

- **SUBSCRIPTION FEE: 250 €**
- **UP TO FOUR TUITION-FEE WAIVERS ARE AVAILABLE FOR INTERNATIONAL STUDENTS, WITH PRIORITY GIVEN TO WOMEN AND STUDENTS WITH SPECIAL NEEDS FROM DEVELOPING COUNTRIES.**

## **IMPORTANT DATES**

- **APRIL 1, 2026: APPLICATION DEADLINE FOR TUITION-FEE WAIVERS**
- **APRIL 14, 2026: TUITION-FREE WAIVERS ANNOUNCEMENT**
- **APRIL 30, 2026: GENERAL APPLICATION DEADLINE FOR ALL CANDIDATES**
- **MAY 15, 2026: TUITION-FEE PAYMENT DEADLINE**
- **JUNE 15-20, 2026: SUMMER SCHOOL**

**MORE INFO [HERE \(WEBSITE\)](#)**

**SUMMER SCHOOL INCLUDES AN  
EDUCATIONAL VISIT TO THE MEDICINA  
RADIO ASTRONOMICAL STATION WITH  
GUIDED TOURS OF ANTENNAS AND  
LABORATORIES**



UNIVERSITÀ DI PISA



Università di Pisa  
Italy Section

## **ORGANIZERS**

## **SUPPORTED BY:**



IEEE AP/ED/MTT NORTH ITALY CHAPTER



ITALY  
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## **CONTACTS**

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Day	Morning class	Afternoon class
<b>Monday</b> <b>June 15</b> <b>9.00-18.00</b>	<b>Welcome message</b> <b>Introduction to the Summer School objectives and contents</b> Paolo Nepa, University of Pisa (Summer School Coordinator)  <b>Electromagnetic wave propagation: a ray-optical picture</b> Giuliano Manara, University of Pisa	<b>Guided wave modeling in coaxial cables, printed lines and waveguides</b> Alice Buffi, University of Pisa  <b>Microwave device modeling</b> Simone Genovesi, University of Pisa  <b>Modeling and characterization of mmWave compound semiconductor devices for high power applications</b> Mordà Antonio, University of Milano-Bicocca, Milano
<b>Tuesday</b> <b>June 16</b> <b>9.00-18.00</b>	<b>The antenna as a system component</b> Paolo Nepa, University of Pisa  <b>Analysis and design of passive devices: modeling and numerical simulation</b> Andrea Michel, University of Pisa	<b>Fundamentals of transceivers for communication systems</b> Francesco Pieri, University of Pisa  <b>Manipulating microwaves and mm-waves with periodic structures</b> Filippo Costa, University of Pisa
<b>Wednesday June 17</b>  <b><u>Educational visit and lectures</u></b>  <b>Medicina Radio Astronomical Station (Bologna)</b> <b>8.00-20.00</b>	<i>Transfer from Pisa to Medicina (by private bus)</i>  <b>Antennas for radio astronomy</b> Pietro Bolli, INAF, Florence  <b>Radio astronomical receivers</b> Marco Poloni, INAF, Bologna  <b>Protection of radio astronomy</b> Federica Caputo, INAF, Bologna  <i>Class-building lunch</i>	<b>Guided tour of the Visitor Center</b> Simona Righini, INAF, Bologna  <b>Optical fibre in radio astronomy</b> Giovanni Tartarini, University of Bologna Federico Perini, INAF, Medicina, Bologna  <b>Guided tour to the antenna sites</b> Simona Righini, INAF, Bologna <a href="#">Link a video gallery</a>  <i>Return to Pisa (by private bus)</i>
<b>Thursday June 18</b> <b>9.00-18.00</b>	<b>Advanced Systems for High Throughput Satellite Communications</b> Martina Angelone, European Space Agency, Noordwijk, The Netherlands  <b>Advanced Distributed Antenna Systems: RF Propagation Insights and Design Principles</b> Marco Fantuzzi, JMA Wireless, Bologna	<b>Fundamentals of satellite communications: a hands-on approach</b> Filippo Giannetti, University of Pisa  <b>Microwaves and High-Speed Photonics: Applications to 6G Systems</b> Roberto Sabella, Ericsson Research, Pisa
<b>Friday</b> <b>June 19</b> <b>9.00-18.00</b>	<b>Wireless Transport for 5G backhaul ... and more</b> Francesca Rosati, Nokia Italia, Milano  <b>mm-Wave and sub-THz communication systems - an industrial viewpoint</b> Dr. Danilo De Donno, Huawei Italy Research Center, Milano	<b>Devices and architectures for battery-less RF systems</b> Alessandra Costanzo, University of Bologna  <b>Wireless communication systems and technologies: from the basics to 5G standards</b> Giacomo Bacci, University of Pisa
<b>Saturday</b> <b>June 20</b> <b>9.00-16.00</b>	<b>Automotive mm-wave radar sensors</b> Sergio Saponara, University of Pisa  <b>Wave propagation in complex environments and multipath models</b> Pierpaolo Usai, University of Pisa	<b>Project-work assignment</b>