

1963–2023

60th ANNIVERSARY OF ACTIVITIES



SUMMARY OF THE 2023 COURSES — ERICE

All Courses are sponsored by the World Federation of Scientists (WFS), the Sicilian Regional Government (ERS), the Italian Ministry of Education, University and Scientific Research and the Galileo Galilei Foundation (GGF). Some of the Courses are under the sponsorship of the Italian Ministry of Foreign Affairs, the Italian Ministry of Health, the North Atlantic Treaty Organization (NATO), the American National Science Foundation (NSF), the Italian National Research Council (CNR), the Weizmann Institute of Science, the European Physical Society (EPS), the Italian National Institute for Nuclear Physics (INFN), the Enrico Fermi Historical Museum of Physics and Study and Research Centre, the World Wildlife Fund (WWF), the Commission of the European Communities (CEC), some of the main Italian and foreign Universities and Research Centres, and the World Laboratory

- **INTERNATIONAL SCHOOL OF EPIDEMIOLOGY AND PREVENTIVE MEDICINE «GIUSEPPE D’ALESSANDRO»**
Directors: G.M. FARA – G. GIAMMANCO – C. SIGNORELLI – M. SZKLO – F. VITALE
59th Course: *Design organization and management the hospitals and the territorial healthcare network of the next future*
Directors: S. CAPOLONGO – A. CASUCCIO – D. D’ALESSANDRO – M. FERRANTE
15 – 18 March 2023
- **INTERNATIONAL SCHOOL OF QUANTUM ELECTRONICS**
Directors: A.N. CHESTER – D.S. WIERSMA
67th Course: *The frontiers of attosecond and ultrafast X-ray science*
Directors: L. DI MAURO – M. NISOLI
26 – 31 March 2023
- **INTERNATIONAL SCHOOL OF CARDIAC SURGERY**
Directors: G. GEROSA – U.F. TESLER
9th Course: *From minimal invasive to microinvasive cardiac surgery*
Directors: G. GEROSA – M. PILATO
2 – 5 April 2023
- **INTERNATIONAL CONFERENCE ON MACHINE LEARNING FOR HEP**
Directors: E. KULIKOVA – V. VAGNONI
11 – 18 April 2023
- **CONFERENZA ITALIANA DEGLI STUDENTI DI FISICA (CISF) – VII**
14 April 2024
- **INTERNATIONAL SCHOOL OF CARDIOLOGY**
Directors: A. BRANZI – F. FEDELE – S. NOVO
23rd Workshop: *Advances in cardiovascular diseases and therapy*
Directors: A.R. GALASSI – G. NOVO – V. POLIZZI
18 – 22 April 2023
- **INTERNATIONAL SCHOOL OF MEDICAL SCIENCES**
Directors: A. ZICHICHI – I. CARRECA
160th Course
Director: S. MONFARDINI
24 – 28 April 2023
- **SCUOLA DI METODOLOGIA E FORMAZIONE IN RICERCA CLINICA SIMI**
Director: G. SESTI
29 April – 2 May 2023

- INTERNATIONAL SCHOOL OF MOLECULAR ONCOLOGY
 Director: F.M. BUONAGURO
 3rd Course *Novel vaccination and immunotherapy strategies*
 Directors: F.M. BUONAGURO – G. FRANCHINI – M.L. TORNESELLO
 29 April – 2 May 2023

- INTERNATIONAL SCHOOL OF NEUTRON SCIENCE AND INSTRUMENTATION
 Directors: C. ANDREANI – R.G.M. CACIUFFO – R. MCGREEVY
 7th Workshop: *Global challenges and the role of science, research infrastructures, and diplomacy*
 Directors: R.G.M. CACIUFFO – G. OTTAVIANI – A. ZICHICHI
 2 – 7 May 2023

- INTERNATIONAL SCHOOL OF ETHOLOGY «DANILO MAINARDI»
 Directors: P. PALANZA – S. PARMIGIANI
 50th Course: *Ethology: Past, present and future*
 Directors: C. AGRILLO – P. PALANZA – S. PARMIGIANI
 3 – 7 May 2023

- INTERNATIONAL SCHOOL OF NONEQUILIBRIUM PHENOMENA
 Directors: A. LANZARA – M.G. PALMA – B. SPAGNOLO
 3rd Workshop: *Waveguide Quantum Electrodynamics (WQED23)*
 Directors: H. BARANGER – D. CHANG – F. CICCARELLO – P. RABL
 8 – 13 May 2023

- INTERNATIONAL SCHOOL OF ETHOLOGY «DANILO MAINARDI»
 Directors: P. PALANZA – S. PARMIGIANI
 51st Course: *Play and the evolution of creative societies*
 Directors: G. BÜRGHARDT – E. PALAGI – S. PELLIS – J. SCHANK – P. SMALDINO
 14 – 18 May 2023

- INTERNATIONAL SCHOOL OF SCIENTIFIC JOURNALISM AND COMMUNICATION
 Director: P. CAMPANA
 11st Course
 Directors: E. COSSI – F. BASSI
 14 – 19 May 2023

- INTERNATIONAL SCHOOL OF STATISTICAL PHYSICS
 Directors: P. HÄNGGI – F. MARCHESONI
 23rd Course: *Frontiers in water biophysics*
 Directors: A. CESARO – L. COMEZ – G. FRANZESE
 19 – 24 May 2023

- INTERNATIONAL SCHOOL OF MATHEMATICS «GUIDO STAMPACCHIA»
 Directors: F. GIANNESSE – now G. BUTTAZZO – M. THÉRA
 76th Course: *Meeting on nonlinear evolution PDEs, fluid dynamics and transport equations*
 Directors: F. ANCONA – L. BERSELLI – S. BIANCHINI – D. DONATELLI – P. SECCHI
 25 – 31 May 2023

- INTERNATIONAL SCHOOL OF CRYSTALLOGRAPHY
 Director: T.L. BLUNDELL
 58th Course: *Structural drug design 2023: Biology, chemistry, and computers*
 Directors: C. DEAN – G. SCAPIN – F. VON DELFT
 2 – 10 June 2023

- INTERNATIONAL SCHOOL OF PRECISION MEDICINE AND LABORATORY
 Directors: M. CIACCIO – F. SALVATORE
 1st Course: *Clinical laboratory medicine in the era of precision medicine*
 Directors: M. CIACCIO – M. PLEBANI – F. SALVATORE
 11 – 13 June 2023

- INTERNATIONAL SCHOOL OF SUBNUCLEAR PHYSICS
 Directors: A. ZICHICHI – A. ZOCCOLI
 59th Course: *Searching the unexpected: Energy, luminosity, precision, small signals*
 Directors: A. BETTINI – A. MASIERO
 14 – 23 June 2023

- INTERNATIONAL SCHOOL OF SOLID STATE PHYSICS
 Director: G. BENEDEK
 83rd Course: *Infrared and Terahertz quantum*
 Directors: S. DHILLON – O. MITROFANOV – A. TREDICUCCI – M.S. VITIELLO
 25 June – 1 July 2023

- INTERNATIONAL SCHOOL OF MATERIALS FOR SUSTAINABLE DEVELOPMENT AND ENERGY
 Director: A. TERRASI
 3rd Course: *Materials for renewable energy and sustainability*
 Directors: D. CAHEN – D. GINLEY – R. O’HAYRE – A. SĀUOI – A. TERRASI – A. WEIDENKAFF
 2 – 9 July 2023

- INTERNATIONAL SCHOOL OF BIOLOGICAL MAGNETIC RESONANCE
 Director: J.D. PUGLISI
 19th Course: *Frontiers in biophysics*
 Directors: J.D. PUGLISI – E. VIANI PUGLISI
 10 – 17 July 2023

- INTERNATIONAL SCHOOL OF ATOMIC AND MOLECULAR SPECTROSCOPY
 Director: B. DI BARTOLO
 38th Workshop: *Advances and future directions in luminescent materials and devices*
 Director: M. CESARIA
 10 – 18 July 2023

- INTERNATIONAL SCHOOL OF NANOMEDICINE
 Directors: M. FERRARI – M. MASSERINI
 6th Course: *The glycobiology of cell metabolic processes at the nanoscale in human pathology*
 Directors: M. AURELI – O.K. GREINER-TOLLERSRUD
 19 – 24 July 2023

- INTERNATIONAL SCHOOL OF PARTICLE ACCELERATORS «KJELL JOHNSEN, GUSTAV VOSS AND EDMUND WILSON»
 Director: T.M. TAYLOR
 4th Course: *Novel acceleration schemes and enabling technologies*
 Directors: R. ASSMANN – L. ROSSI – F. TECKER
 27 July – 2 August 2023

- INTERNATIONAL SCHOOL OF SOLID STATE PHYSICS
 Director: G. BENEDEK
 84th Course: *Quantum complex matter manipulation. From Majorana exchange interaction and Fano resonances to manipulation of quantum entanglement*
 Director: A. BIANCONI
 3 – 9 August 2023

- INTERNATIONAL SEMINARS ON PLANETARY EMERGENCIES
 Chairman: A. ZICHICHI
 54th Session – Co-Chairman: C. GALBIATI
 18 – 24 August 2023

- HYDROGEN SYMPOSIUM
 2nd Session
 Chairmen: C. DI FIGLIO – S.F. ZICHICHI
 22 – 25 August 2023

- INTERNATIONAL SCHOOL OF LIQUID CRYSTALS
 Director: C. ZANNONI
 26th Workshop: *Biophotonics at nanoscale: From smart nanomaterials to advanced optical technologies for life, environmental science and nanomedicine*
 Directors: A. D’ALESSANDRO – P. PASINI – C. ZANNONI
 26 – 31 August 2023

- INTERNATIONAL CONFERENCE ON QUANTUM TECHNOLOGIES SQMS: EARLY RESULTS
 Directors: V. BONVICINI – S. LAMI MOSCHENI
 1 – 7 September 2023

- INTERNATIONAL SCHOOL OF NEUROSCIENCES «SIR JOHN ECCLES»
Directors: P.F. FERRARI – G. RIZZOLATTI
13rd Course: *Neurobiology of social behaviours*
Directors: P.F. FERRARI – V. GRINEVICH – F. PAPALEO – S. WAGNER
8 – 14 September 2023
- GIORNATE INTERNAZIONALI DI STUDI SULL'AREA ELIMA «GIUSEPPE NENCI»
Decime Giornate Internazionali di Studi sull'Area Elima e la Sicilia Occidentale
Directors: C. AMPOLO – R. GIGLIO – A. MAGNETTO
14 – 16 September 2023
- INTERNATIONAL SCHOOL OF NUCLEAR PHYSICS
Directors: A. FAESSLER – now M. BUBALLA – C. FISCHER
44th Course: *From quarks and gluons to hadrons and nuclei*
Directors: M. BUBALLA – C. FISCHER
18 – 24 September 2023
- INTERNATIONAL SCHOOL OF QUANTUM ELECTRONICS
Directors: A.N. CHESTER – D.S. WIERSMA
68th Course: *Progress in photoacoustic and photothermal phenomena: Focus on biomedical, nanoscale, NDE, gas sensing and thermophysical phenomena and technologies*
Directors: R. LI VOTÌ – A. MANDELIS
24 September – 1 October 2023
- INTERNATIONAL SCHOOL OF PHARMACOLOGY «GIAMPAOLO VELO»
Directors: M. LINDQUIST – P. MINUZ – U. MORETTI
92nd Workshop
Director: M. LINDQUIST
26 September – 2 October 2023
- INTERNATIONAL SCHOOL OF PHARMACOLOGY «GIAMPAOLO VELO»
Director: M. LINDQUIST – P. MINUZ – U. MORETTI
93rd Workshop
Director: U. MORETTI
26 September – 2 October 2023
- INTERNATIONAL SCHOOL OF STATISTICAL PHYSICS
Directors: P. HÄNGGI – F. MARCHESONI
24th Course *Quantum devices for non-classical light generation and manipulation*
Directors: D. BAJONI – S.L. PORTALUPI – R. TROTTA
3 – 8 October 2023
- INTERNATIONAL SCHOOL OF NONEQUILIBRIUM PHENOMENA
Directors: A. LANZARA – M.G. PALMA – B. SPAGNOLO
4th Course: *New Trends in Nonequilibrium Statistical Mechanics*
Directors: A. CAROLLO – A. LANZARA – M.G. PALMA – B. SPAGNOLO
9 – 15 October 2023
- INTERNATIONAL SCHOOL OF BIOPHYSICS «A. BORSELLINO»
48th Course: *Memos for biophysics into the future: Lightness, quickness, exactitude, visibility, multiplicity, and consistency*
Directors: M. DALLA SERRA – A. DIASPRO – C. VIAPPIANI
16 – 22 October 2023
- INTERNATIONAL SCHOOL OF ETHOLOGY «DANILO MAINARDI»
Directors: P. PALANZA – S. PARMIGIANI
52nd Course: *The athletic Ape: Merging human evolutionary biology with sport science*
Directors: D. LONGMAN – D. PONZI – S. PARMIGIANI
17 – 21 October 2023
- INTERNATIONAL SCHOOL OF RADIATION DAMAGE AND PROTECTION
Directors: M. BRUGGER – S. ROESLER – V. VYLET
12nd Course: *Challenges in radiation damage and radiation protection during design and operation of accelerator facilities and space missions*
Directors: R. GARCIA ALIA – H.-S. LEE – N. MOKHOV
23 – 30 October 2023

- INTERNATIONAL MEETING ON ORTHOPEDICS
Director: C. SUGAMELI
2 – 4 November 2023

- GIORNATE INTERNAZIONALI DI STUDI SULL'AREA ELIMA «GIUSEPPE NENCI»
Undicesime Giornate Internazionali di Studi sull'Area Elima e la Sicilia Occidentale
Directors: C. AMPOLO – R. GIGLIO – A. MAGNETTO
4 – 20 November 2023

- INTERNATIONAL SCHOOL ON TREASURES OF ART AND SCIENCE
Director: L. ZICHICHI
12nd Seminar
Director: L. ZICHICHI
4 – 20 November 2023

- INTERNATIONAL SCHOOL OF ETHOLOGY «DANILO MAINARDI»
Directors: P. PALANZA – S. PARMIGIANI
53rd Course: *Urban mammals in Europe*
Director: M. APOLLONIO
20 – 24 November 2023

- INTERNATIONAL SCHOOL OF EPIDEMIOLOGY AND PREVENTIVE MEDICINE «GIUSEPPE D'ALESSANDRO»
Directors: G.M. FARA – G. GIAMMANCO – C. SIGNORELLI – M. SZKLO – F. VITALE
60th Course
Director: G.M. FARA
20 – 25 November 2023

- INTERNATIONAL SCHOOL OF NONEQUILIBRIUM PHENOMENA
Directors: A. LANZARA – M.G. PALMA – B. SPAGNOLO
5th Course: *Chaos and information dynamics in quantum many body systems*
Directors: D.A. ABANIN – A. POLKOVNIKOV – A. SILVA
26 November – 2 December 2023

- INTERNATIONAL SCHOOL OF IUS COMMUNE
Directors: M. BELLOMO – O. CONDORELLI – W. DECOCK – K. PENNINGTON
42nd Course: *International law and interfaith relations in the "ius commune" tradition*
Directors: O. CONDORELLI – W. DECOCK – D. FEDELE
3 – 7 December 2023

- INTERNATIONAL SCHOOL OF BRAIN CELLS AND CIRCUITS «CAMILLO GOLGI»
Directors: E. D'ANGELO – C. GANDINI WHEELER-KINGSHOTT
8th Course: *Modeling the brain*
Directors: E. D'ANGELO – C. GANDINI WHEELER-KINGSHOTT
8 – 13 December 2023

**More information about the activities of the Ettore Majorana Foundation
can be found on the WWW at the following address:
<https://ettoremajoranafoundation.it>**