Summary of the 2019 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 Quantum Electronics**
  Directors: A.N. Chester – D.S. Wiersma
  62nd Course: *The Frontiers of Attosecond and Ultrafast X-ray Science*
  Directors: L. Dimuaro – M. Nisoli
  10 – 16 March 2019

- **International School of Science Education**
  Director: P. Léna
  2nd Workshop: *Climate education: Climate, ocean and land use*
  Directors: L. Lescarmontier – D. Wilgenbus
  11 – 16 March 2019

- **International School on Bioelectromagnetism «Alessandro Chiabrera»**
  Directors: F. Bersani – M.R. Scarfi
  9th Course: *Possible biomedical applications of EMFs to cancer: from Biology and in silico to clinical perspectives*
  Directors: T. Samaras – G. Sersa
  24 – 30 March 2019

- **INFN ELOISATRON Project**
  Director: A. Zichichi
  61st Workshop: *Industrialization of Critical Technical Sub-systems of a 100 TeV Collider*
  Directors: W.A. Barletta – B. Strauss
  1 – 5 April 2019

- **International School of Scientific Journalism and Communication**
  Director: E. Iarocci
  10th Course: *Big Projects for Science and Knowledge*
  Directors: P. Campana – C. Di Giorgio
  6 – 11 April 2019

- **Zero Robotics - Italy**
  Directors: E. Miceli – M.P. Lucentini
  11 April 2019

- **International School of Neutron Science and Instrumentation**
  Directors: C. Andreani – R.G.M. Caciuffo – R. McGreevy
  6th Course: *49èmes Journées des Actinides*
  Directors: R.G.M. Caciuffo – E. Colineau
  14 – 18 April 2019

- **International Conference on Medicis Promed H2020**
  Directors: J.O. Prior – T. Stora
  29 April – 4 May 2019
INTERNATIONAL SCHOOL OF ETHOLOGY «DANILO MAINARDI»
Director: S. PARMIGIANI
44th Course: Social Stress: Psychological and psychosomatic implications
Directors: S. DE BOER – A. SGOIFO – J. THAYER – V. VACCARINO
6 – 11 May 2019

INTERNATIONAL SCHOOL OF ETHOLOGY «DANILO MAINARDI»
Director: S. PARMIGIANI
45th Course: Sex differences, dimorphisms, divergences: Impact on brain and behaviour in health and disease
Directors: M. McCARTHY – P. PALANZA – S. PARMIGIANI
20 – 25 May 2019

INTERNATIONAL SCHOOL OF EPIDEMIOLOGY AND PREVENTIVE MEDICINE «GIUSEPPE D’ALESSANDRO»
55th Course: ASPHER: Deans’ and Directors’ retreat
Directors: G. PRIVITERA – C. SIGNORELLI
26 – 29 May 2019

INTERNATIONAL SCHOOL OF CRYSTALLOGRAPHY
Director: T.L. BLUNDELL
53rd Course: Magnetic Crystallography
31 May – 9 June 2019

INTERNATIONAL SCHOOL OF CRYSTALLOGRAPHY
Director: T.L. BLUNDELL
54th Course: Cryo 3D Electron Microscopy
Directors: D. HANEIN – S. LUDTKE – S. RAUNSER
31 May – 9 June 2019

ASSEMBLEA ORGANIZZATIVA FILCA-CISL
Chairman: P. D’ANCA
11 – 13 June 2019

FROM SAFETY OF NAVIGATION TO SAFEGUARDING THE SEA A PATH THAT JOINS THE FUTURE, SCIENCE, ART AND PROFESSIONALISM
Chairman: V. BELLOMO
14 – 15 June 2019

INTERNATIONAL SCHOOL OF CARDIOLOGY
Directors: A. BRANZI – F. FEDELE
21st Workshop: Advances in Cardiovascular Imaging and Therapy
16 – 19 June 2019

INTERNATIONAL SCHOOL OF SUBNUCLEAR PHYSICS
Director Emeritus: A. ZICHICHI – Director: G. ’t HOOFT
57th Course: In Search for the Unexpected
Director: G. ’t HOOFT
21 – 30 June 2019

INTERNATIONAL SCHOOL OF MATHEMATICS «GUIDO STAMPACCHIA»
Directors: G. BUTTAZZO – F. GIANNESSI – M. THÉRA
71st Workshop: Advances in Nonsmooth Analysis and Optimization
Directors: A. BARBAGALLO – R.I. BOT – C. SAGASTIZABAL
24 June – 1 July 2019

INTERNATIONAL SCHOOL OF COMPLEXITY
16th Course: Nonextensive statistical mechanics, superstatistics and beyond: Theory and applications in astrophysical and other complex systems
2 – 8 July 2019

INTERNATIONAL SCHOOL OF NANOMEDICINE
Directors: M. FERRARI – M. MASSERINI
4th Course: Precision nanomedicine
Directors: M. MOGHI – F. RE
2 – 8 July 2019
INTERNATIONAL SCHOOL OF WATER AND WATER SYSTEM
Directors: R. CAR – F. MALLAMACE – L.G.M. PETTERSON
2nd Course: Polymers and soft materials: Glasses, gels and networks
Directors: F. GRECO – G. MENSIETIERI
9 – 16 July 2019

INTERNATIONAL SCHOOL OF ATOMIC AND MOLECULAR SPECTROSCOPY
Director: B. DI BARTOLO
37th Course: Light-Matter Interactions Towards the Nanoscale
Directors: J. COLLINS – S. GAPONENKO
20 July – 4 August 2019

INTERNATIONAL SCHOOL OF STATISTICAL PHYSICS
Directors: P. HÄNGGI – F. MARCHESONI
17th Course: Frontiers in Water Biophysics
Directors: A. CESÀRO – L. COMEZ – G. FRANZESE
21 – 26 July 2019

INTERNATIONAL SCHOOL OF BIOLOGICAL MAGNETIC RESONANCE
Director: J.D. PUGLISI
17th Course: Modeling the brain and its pathologies
Directors: E. D’ANGELO – C. GANDINI WHEELER-KINGSHTOTT
27 August – 1 September 2019

INTERNATIONAL SCHOOL OF STATISTICAL PHYSICS
Directors: P. HÄNGGI – F. MARCHESONI
18th Course: Transport phenomena in complex environments
Directors: E. FOULAADVAND – H. LOWEN – A. SCHADSCHNEIDER
2 – 6 September 2019

INTERNATIONAL SCHOOL OF MATHEMATICS «GUIDO STAMPACCHIA»
Directors: G. BUTTAZZO – F. GIANNESSI – M. THÉRA
72nd Workshop: New trends in propagation of Linear and Nonlinear Wave Phenomena
2 – 7 September 2019

INTERNATIONAL SCHOOL OF PHARMACOLOGY «GIAMPAOLO VELO»
Director: P. MINUZ
87th Course: New strategies in the prevention of non-communicable diseases: Focus on cardiovascular and metabolic disorders
Directors: R. LEONE – P. MINUZ – C. PATRONO
8 – 12 September 2019

INTERNATIONAL SCHOOL OF QUANTUM ELECTRONICS
Directors: A.N. CHESTER – D.S. WIERSMA
63rd Course: Cold plasmas: Fundamentals and applications
Directors: M. CAPITELLI – G. COLONNA – A. LARICCHIUTA
8 – 14 September 2019

INTERNATIONAL SCHOOL OF PHARMACOLOGY «GIAMPAOLO VELO»
Director: P. MINUZ
88th Workshop: Causes and effects of therapeutic interventions: A propensity-based approach
12 – 15 September 2019

INTERNATIONAL SCHOOL OF NUCLEAR PHYSICS
Directors: M. BUBALLA – A. FAESSLER – J. WAMBACH
41st Course: Star mergers, dark matter, neutrinos in nuclear, particle and astro physics and in cosmology
Directors: M. BUBALLA – A. FAESSLER – J. WAMBACH
16 – 24 September 2019
INTERNATIONAL SCHOOL OF NEUROSCIENCES «SIR JOHN ECCLES»
Directors: P.F. FERRARI – G. RIZZOLATTI
10th Course: Brain and Behavioral Evolution in Primates
Directors: C. CROCKFORD – P.F. FERRARI – R. WITTIG
25 – 29 September 2019

INTERNATIONAL SCHOOL OF MOLECULAR ONCOLOGY
Director: F.M. BUONAGURO
2nd Course: Infectious Agents-related Malignancies
Directors: F.M. BUONAGURO – G. FRANCHINI – M.L. TOMASELLO
25 – 29 September 2019

INTERNATIONAL SCHOOL OF STATISTICAL PHYSICS
Directors: P. HÄNGGI – F. MARCHESONI
19th Course: Quantum devices for non-classical light generation and manipulation
Directors: D. BAJONI – S.L. PORTALUPI – R. TROTTA
30 September – 5 October 2019

INTERNATIONAL SCHOOL ON MIND, BRAIN AND EDUCATION
Directors: A.M. BATTRO – K.W. FISCHER
14th Course: The science of learning and teaching
30 September – 5 October 2019

INTERNATIONAL SCHOOL OF MEDICAL SCIENCES
Directors: A. ZICHICI – I. CARRECA
157th Course: Nutrition, Health and Aging: From Sustainability to Disease Prevention
Director: G. CARRUBA
5 – 7 October 2019

INTERNATIONAL SCHOOL OF DERMATOLOGY
Directors: G. BURG – B. GIANNOTTI
12th Course: News on Atopic Dermatitis
Director: L. ZICHICI
5 October 2019

INTERNATIONAL SCHOOL OF PHARMACOLOGY «GIAMPAOLO VELO»
Director: P. MINUZ
89th Course: Improving the detection, analysis and reporting of harms in medicines
6 – 10 October 2019

INTERNATIONAL SCHOOL OF IUS COMMUNE
Directors: M. BELLOMO – O. CONDORELLI – K. PENNINGTON
39th Course: The city, the country, lordship and power: Jurisprudence and Law from the Middle Ages
Directors: O. CONDORELLI – A. PADOVANI
7 – 11 October 2019

INTERNATIONAL SCHOOL OF CARDIOLOGY
Directors: A. BRANZI – F. FEDELE
22nd Workshop
Directors: F. FEDELE
18 – 21 October 2019

INTERNATIONAL SCHOOL OF STATISTICAL PHYSICS
Directors: P. HÄNGGI – F. MARCHESONI
20th Course: New Trends in Nonequilibrium Stochastic Multistable Systems and Memristors
Directors: O.L. GORSHKOV – B. SPAGNOLO – D. VALENTI
18 – 21 October 2019

INTERNATIONAL SCHOOL OF ETHOLOGY «DANILO MAINARDI»
Director: S. PARMIGIANI
46th Workshop: Ethology, psychology, psychiatry: An evolutionary approach
Directors: M. BRUNE – P. PALANZA – S. PARMIGIANI – A. TROISI
22 – 27 October 2019
INTERNATIONAL SEMINARS ON PLANETARY EMERGENCIES  
Chairman: A. ZICHICHI – Co-Chairman: T.D. LEE  
53rd Session: Catastrophic Risk  
Chair: S. LEIVESLEY – Co-Chairs: A. NILSSON – R.N. SCHOCK  
28 October – 1 November 2019

INTERNATIONAL ELOISATRON PROJECT  
Director: A. ZICHICHI  
62nd Workshop: High Power Cyclotrons for frontier Particle Physics  
Directors: W.A. BARLETTA – M. SHAEVITZ  
28 October – 2 November 2019

INTERNATIONAL SCHOOL OF MEDICAL SCIENCES  
Directors: A. ZICHICHI – I. CARRECA  
157th Course: Advances in Nutrigenomics and Epigenetics  
Director: D. GALIMBERTI  
29 – 31 October 2019

INTERNATIONAL SCHOOL OF EPIDEMIOLOGY AND PREVENTIVE MEDICINE «GIUSEPPE D’ALESSANDRO»  
56th Course: Environment’s impact assessment on health: from theory to practice  
Directors: A. CARDUCCI – M. FERRANTE  
3 – 7 November 2019

INTERNATIONAL SCHOOL OF MEDICAL SCIENCES  
Directors: A. ZICHICHI – I. CARRECA  
158th Course: Laboratory medicine  
Directors: M. CIACCIO – F. SALVATORE  
7 – 9 November 2019

INTERNATIONAL SYMPOSIUM ON CONTRAST MEDIA RESEARCH  
Chairmen: S. AIME – C.C. QUATTROCCHI  
10 – 15 November 2019

INTERNATIONAL MEETING ON THE GENETICS, PATHOGENESIS, PREVENTION, AND THERAPY OF TYPE 1 DIABETES  
Directors: C. MATHIEU – L. OVERBERGH – A. PUGLIESE  
17 – 22 November 2019

INTERNATIONAL SCHOOL OF BIOPHYSICS «ANTONIO BORSELLINO»  
45th Course: Neuropiodemiology: Methods and clinical applications  
24 – 30 November 2019

INTERNATIONAL SCHOOL OF MEDICAL SCIENCES  
Directors: A. ZICHICHI – I. CARRECA  
159th Course: Management of solid tumors in aged people: An update  
Director: S. MONFARDINI  
5 – 7 December 2019

INTERNATIONAL SCHOOL OF THORACIC MEDICINE  
11st Course: Interstitial lung diseases  
Director: C. VANCHERI  
9 – 12 December 2019

More information about the activities of the Ettore Majorana Foundation  
can be found on the WWW at the following address:  
http://www.ccsem.infn.it