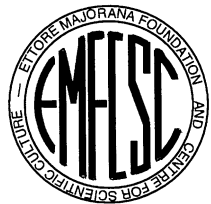


«ETTORE MAJORANA» FOUNDATION AND CENTRE FOR SCIENTIFIC CULTURE

TO PAY A PERMANENT TRIBUTE TO ARCHIMEDES AND GALILEO GALILEI, FOUNDERS OF MODERN SCIENCE
AND TO ENRICO FERMI, THE "ITALIAN NAVIGATOR", FATHER OF THE WEAK FORCES



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. DIMAURO – 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. ŠGOIFO – 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»
 Directors: G.M. FARA – G. GIAMMANCO – C. SIGNORELLI – M SZKLO – F. VITALE
 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*
 Directors: B.J. CAMPBELL – M.T. FERNANDEZ DIAZ – J.M. PEREZ-MATO
 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*
 Directors: A.R. GALASSI – G. NOVO – S. NOVO
 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. GIANNESI – 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
 Director: A. ZICHICHI – Co-Directors: G. BENEDEK – M. GELL-MANN – A. RAPISARDA – C. TSALLIS
 16th Course: *Nonextensive statistical mechanics, superstatistics and beyond: Theory and applications in astrophysical and other complex systems*
 Directors: C. BECK – G. BENEDEK – G. LIVADIOTIS – A. RAPISARDA – U. TIRNAKLI – C. TSALLIS
 2 – 8 July 2019

- INTERNATIONAL SCHOOL OF NANOMEDICINE
 Directors: M. FERRARI – M. MASSERINI
 4th Course: *Precision nanomedicine*
 Directors: M. MOGHIMI – 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. MENSITIERI
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: *Frontiers in Biophysics*
Directors: J.D. PUGLISI – E. VIANI PUGLISI
28 July – 4 August 2019
- INTERNATIONAL SEMINARS ON PLANETARY EMERGENCIES
Chairman: A. ZICHICHI
52nd Session – Co-Chairman: T.D. LEE
18 – 25 August 2019
- INTERNATIONAL SCHOOL OF BRAIN CELLS AND CIRCUITS «CAMILLO GOLGI»
Directors: E. D'ANGELO – C. GANDINI WHEELER-KINGSHOTT
5th Course: *Modeling the brain and its pathologies*
Directors: E. D'ANGELO – C. GANDINI WHEELER-KINGSHOTT – V. JIRSA
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. GIANNESI – M. THÉRA
72nd Workshop: *New trends in propagation of Linear and Nonlinear Wave Phenomena*
Directors: N. BURQ – F. COLOMBINI – N. TZVETKOV – L. VEGA – N. VISCIGLIA – C. ZUILY
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*
Directors: R.L. ANJUM – R. EDWARDS – M. LINDQUIST – U. MORETTI
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*
Directors: G.D. COSTANZO – D.A. GOLOMBEK – S.J. LIPINA
30 September – 5 October 2019
- INTERNATIONAL SCHOOL OF MEDICAL SCIENCES
Directors: A. ZICHICHI – 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. ZICHICHI
5 October 2019
- INTERNATIONAL SCHOOL OF PHARMACOLOGY «GIAMPAOLO VELO»
Director: P. MINUZ
89th Course: *Improving the detection, analysis and reporting of harms in medicines*
Directors: R. CHANDLER – C. HENEGHAN – R. LEONE – M. LINDQUIST
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. BRÛNE – 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

- INFN 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»
Directors: G.M. FARA – G. GIAMMANCO – C. SIGNORELLI – M SZKLO – F. VITALE
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: *Neuroepidemiology: Methods and clinical applications*
Directors: M. D’AMELIO – A. ELBAZ – T. KURTH – G. LOGROSCINO – P.M. PREUX – P. RAGONESE – W.A. ROCCA – G. SAVETTIERI
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>**