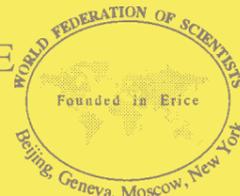




«ETTORE MAJORANA» FOUNDATION AND CENTRE FOR SCIENTIFIC CULTURE
TO PAY A PERMANENT TRIBUTE TO GALILEO GALILEI, FOUNDER OF MODERN SCIENCE
AND TO ENRICO FERMI, THE "ITALIAN NAVIGATOR", FATHER OF THE WEAK FORCES



INTERNATIONAL SCHOOL OF NUCLEAR PHYSICS

30th Course: HEAVY-ION COLLISIONS FROM THE COULOMB BARRIER TO THE QUARK-GLUON PLASMA

ERICE–SICILY: 16 – 24 SEPTEMBER 2008

Sponsored by the: • Deutsche Forschungsgemeinschaft • European Physical Society
• Italian Ministry of Education, University and Scientific Research • Sicilian Regional Government

TOPICS AND LECTURERS

Future physics prospect program of FAIR
• P. BRAUN-MUNZINGER, GSI, DE

Liquid gas phase transition
• P. CHOMAZ, GANIL, FR

Isospin effects in heavy-ion reactions
• M. DI TORO, Laboratori del Sud, Catania, IT

Future isotope science facility at MSU
• K. GELBKE, MSU, US

QCD phase transition
• T. HATSUDA, University of Tokyo, JP

QCD phase transition on the lattice
• F. KARSCH, BNL, US

Superheavy research in Japan
• K. MORITA, RIKEN, JP

AdS-CFT in heavy-ion physics
• K. RAJAGOPAL, MIT, US

High temperature QCD matter
• A. REBHAN, Technische Universität Wien, AT

Relativistic heavy-ion collisions at CERN
• J. STACHEL, Universität Heidelberg, DE

Ideal hydrodynamics at RHIC
• D. TEANEY, Stony Brook University, US

Description of relativistic heavy-ion collisions
• U. WIEDEMANN, CERN, CH

Relativistic heavy-ion physics at RHIC
• NU XU, Berkeley, US

PURPOSE OF THE COURSE

Hot and dense nuclear matter plays an important role in the quark-hadron transition shortly after the big bang, in the element production in stars and the interior of neutron stars. The properties of such matter under extreme conditions can be studied in heavy-ion collisions.

Several countries operate facilities or have plans to build new accelerator systems to investigate hot and dense nuclear matter in heavy-ion collisions. Such facilities are located in RIKEN near Tokyo, at GSI in Darmstadt, at GANIL in Caen and at MSU in East Lansing. For extremely relativistic energies, heavy-ion beams are available at 200 GeV per nucleon in the center of mass system at RHIC (Relativistic Heavy Ion Collider) in Brookhaven and even higher energies will be available at 14 TeV at the LHC (Large Hadron Collider) in the ALICE experiment at CERN in Geneva. Erice 2008 "Heavy-Ion Collisions from the Coulomb Barrier to the Quark-Gluon Plasma" will be devoted to the physics at these facilities and will explore future plans at the GSI Darmstadt (FAIR) and at the "Future Isotope Science Facility" at MSU in the States.

APPLICATIONS

Persons wishing to attend the Course should use the on-line registration under:
<http://www.physik.tu-darmstadt.de/erice/>

or under

<http://www.uni-tuebingen.de/erice/>

or apply in writing to:

- Professor Amand FAESSLER
Universität Tuebingen
Auf der Morgenstelle 14
D-72076 TUEBINGEN, Germany
Tel +49.7071.2976370 – Fax +49.7071.295388
e-mail: erice2008@physik.tu-darmstadt.de

They should specify:

- date and place of birth together with present nationality;
- degree and other academic qualifications;
- present position and place of work.
- postal and e-mail address.

More information about the school and application forms for fellowships can be found under the same web address

POETIC TOUCH

According to legend, Erice, son of Venus and Neptune, founded a small town on top of a mountain (750 metres above sea level) more than three thousand years ago. The founder of modern history — i.e. the recording of events in a methodic and chronological sequence as they really happened without reference to mythical causes — the great Thucydides (~500 B.C.), writing about events connected with the conquest of Troy (1183 B.C.) said: «After the fall of Troy some Trojans on their escape from the Achaei arrived in Sicily by boat and as they settled near the border with the Sicilians all together they were named Elymi: their towns were Segesta and Erice.» This inspired Virgil to describe the arrival of the Trojan royal family in Erice and the burial of Anchise, by his son Enea, on the coast below Erice. Homer (~1000 B.C.), Theocritus (~300 B.C.), Polybius (~200 B.C.), Virgil (~50 B.C.), Horace (~20 B.C.), and others have celebrated this magnificent spot in Sicily in their poems. During seven centuries (XIII-XIX) the town of Erice was under the leadership of a local oligarchy, whose wisdom assured a long period of cultural development and economic prosperity which in turn gave rise to the many churches, monasteries and private palaces which you see today.

In Erice you can admire the Castle of Venus, the Cyclopean Walls (~800 B.C.) and the Gothic Cathedral (~1300 A.D.). Erice is at present a mixture of ancient and medieval architecture. Other masterpieces of ancient civilization are to be found in the neighbourhood: at Motya (Phoenician), Segesta (Elymian), and Selinunte (Greek). On the Aegadian Islands — theatre of the decisive naval battle of the first Punic War (264-241 B.C.) — suggestive neolithic and paleolithic vestiges are still visible: the grottoes of Favignana, the carvings and murals of Levanzo.

Splendid beaches are to be found at San Vito Lo Capo, Scopello, and Cornino, and a wild and rocky coast around Monte Cofano: all at less than one hour's drive from Erice.

More information about the «Ettore Majorana» Foundation and Centre for Scientific Culture can be found on the WWW at the following address:
<http://www.ccsem.infn.it>

- **PLEASE NOTE**
Participants must arrive on September 16, not later than 7 pm.