

INTERNATIONAL SCHOOL OF PHYSICS

"ETTORE MAJORANA"

Sponsored by: CERN - European Organization for Nuclear Research
MPI - Italian Ministry of Public Education
NATO - North Atlantic Treaty Organization
The Weizmann Institute of Science

Place: Erice (Trapani) Sicily

Period: 1-14 July 1967

Subject: "ADVANCES IN PARTICLE PHYSICS"

PROGRAMME

I. MORNING LECTURES

1. Algebraic Methods in Particle Physics
(Current algebra, sum rules, symmetry groups)
2. Analitycity Properties in Particle Physics
(Exact results, application of dispersion relations, etc.)
3. High-Energy Interactions
(Reggeology, diffraction mechanisms, real parts, spin dependence, etc.)
4. Electromagnetic Properties of Elementary Particles
(Tests of quantum electrodynamics, photoproduction, form factors, electromagnetic decays)
5. New Ideas on CP Violation

II. AFTERNOON DISCUSSIONS

III. SEMINARS ON EXPERIMENTAL TOPICS

1. Review on Particles and Resonances.
2. Present Experiments at CERN, DESY, and NIMROD.
3. Status of Colliding (e^+e^-) Beam Machines.
4. The Administration of Radiative Corrections.

LECTURERS

N. Cabibbo, University of Rome, Italy, and CERN, Geneva, Switzerland.
S. Coleman, Harvard University, Cambridge, U.S.A.
C. Franzinetti, University of Turin, Italy, and CERN, Geneva, Switzerland.
M. Gell-Mann, California Institute of Technology, U.S.A.
S. Glashow, Harvard University, Cambridge, U.S.A.
B. Gregory, CERN, Geneva, Switzerland.

I. S. Hughes, University of Glasgow, Glasgow, U.K.
W. Jentschke, DESY, Hamburg, Fed. Rep. of Germany.
G. H. Stafford, The Rutherford High Energy Laboratory, Chilton, U.K.
B. Touschek, University of Rome, and Laboratori Nazionali di Frascati, Italy.
V. F. Weisskopf, Massachusetts Institute of Technology, Cambridge, U.S.A.
B. Zumino, New York University, New York, U.S.A.

PURPOSE OF THE SCHOOL

The school is devoted to those physicists who are interested in having a much deeper theoretical understanding of the field of physics in which they are working. The emphasis of the programme will be on the elucidation and discussion of the progress achieved in the theoretical and experimental understanding of particle physics during the last year. The students will be selected from the applicants according to their scientific qualifications. In this selection, the geographical distribution of the students will be taken into account.

In order to exploit to the fullest extent the material presented at the school, three lectures will be given in the morning and two hours of the afternoon will be dedicated to clearing up in free, informal discussions, the topics of the morning lectures. The seminars will be given in afternoon or evening sessions.

POETIC TOUCH

Legend tells that Erice, son of Venus, was the founder, more than three thousand years ago, of a small town on top of a mountain (750 metres above sea level).

Homer (~1,000 B.C.), Theocritus (~300 B.C.), Polybius (~200 B.C.), Horace (~70 B.C.), Virgil (~20 B.C.), and others, have celebrated in their poems this magnificent spot in Sicily. There you can admire among other beauties the Castle of Venus and the Cyclopean Walls. Other masterpieces of ancient Greek civilization are found in the neighbourhood, such as Motya, Segesta and Selinunte. The "Grotte Marine" of the Aegadian Islands can be reached by cable-car and flying boat in about an hour.

* * *

Please note:

1. It is regretted that owing to the limited number of places available in the lecture hall, it will not be possible to allow any person who has not been selected by the committee of the School to follow the courses.
2. NSF travel grants are restricted to U.S.A. citizens. Applications for these should be made as soon as possible through the Director of the School.
3. Enquiries regarding publications of previous courses should be addressed to: ACADEMIC PRESS, Inc., 111 Fifth Avenue, New York, N.Y. 1003, U.S.A.

GENERAL INFORMATION

Persons wishing to attend this course should send a letter to:

The Secretary of the School: Mrs. Carla MINGHINI
CERN—European Organization for Nuclear Research
1211 Geneva 23
(Switzerland)

They should specify:

- i) date and place of birth together with their present nationality;
 - ii) degree and other academic qualifications;
 - iii) list of publications;
 - iv) present position and place of work;
- and include
- v) a letter of recommendation from their research group leader or from a professor of physics.

The total fee, including full board and lodging (arranged by the School), is 700 Swiss francs. Thanks to the generosity of MPI and NATO, partial support can be given to some students needing financial help. This need has to be specified and justified in the letter of application, which should be sent as soon as possible.

Closing date for applications: 10 April 1967

No special application-form is required

A letter will be sent to the successful applicants on 30 April. Those students who, because of possible difficulties with travel documentation, would like to know before 30 April whether their application has been accepted or not, may obtain an earlier special decision by submitting a justified request.

Admission to the school will be decided by a commission composed of: Prof. J. S. Bell, Prof. G. Bernardini, Prof. N. Cabibbo, Prof. A. De-Shalit, Prof. L. A. Radicati, Prof. V. F. Weisskopf, and the Director of the School.

All students must be in Erice on 1 July not later than 5 p.m. More detailed information, including the timetable of the lectures, will be sent to the successful applicants together with the acceptance letter.

A. ZICHICHI
DIRECTOR OF THE SCHOOL