

FOREWORD

The Ninth International Spring Seminar on Nuclear Physics was held in Vico Equense from May 20 to May 24, 2007. This Seminar was the ninth in a series of topical meetings to be held every two or three years in the Naples area. The series began with the Sorrento meeting in 1986 and continued with the Capri meeting in 1988, the Ischia meeting in 1990, the Amalfi meeting in 1992, the Ravello meeting in 1995, the S. Agata meeting in 1998, the Maiori meeting in 2001, and the Paestum meeting in 2004.

For this ninth meeting we came back to the Sorrento area and met in the small town of Vico Equense. What remained invariant is the aim of these meetings, which is to discuss recent advances and new perspectives in nuclear structure experiment and theory in a pleasant and friendly atmosphere.

Nuclear structure studies of exotic nuclei are currently being performed in several laboratories where beams of radioactive nuclei are available. Meanwhile the development of new facilities, which will provide high-intensity beams, is in progress or under discussion in Europe, Asia and North America. At this meeting we had a comprehensive overview of this fascinating field and of future scenarios thanks to the participation of leaders of the most important projects.

Nuclear structure is pushing ahead its frontiers. On the one hand, the new exciting results of spectroscopic studies of nuclei far from stability is giving impetus to theoretical studies of possible changes of nuclear structure. On the other hand, sustained efforts are being made to understand the properties of nuclei in terms of the basic interactions between the constituents. This means that a truly microscopic theory of nuclear structure is on the way.

As usual, the program of the meeting consisted of general talks and of more specialized seminars, the latter including most of the contributions submitted by participants. The speakers covered five main topics: i) Exotic Nuclear Structure; ii) Nuclear Structure and Nuclear Forces; iii) Shell Model and Nuclear Structure; iv) Collective Modes of Nuclear Excitation; v) Special Topics. This volume contains the invited papers and all oral and poster contributions considered relevant to the Seminar according to the judgment of the Advisory Committee. The actual program of the Seminar is also included to give an idea of how it was organized. We are confident that the high quality of both invited and contributed papers collected in

these Proceedings will be appreciated by the nuclear physics community.

As was the case for most of the previous Seminars, the Vico Equense Seminar too ended with a Round Table Discussion on the theme "Trends and Perspectives in Nuclear Structure". G. de Angelis, F. Azaiez, C. Baktash, J. P. Draayer, A. Faessler and I. Talmi kindly agreed to be on the panel and their remarks were essential in bringing about the active involvement of the audience.

The Conference had more than 80 participants coming from 20 countries. This is well in line with the tradition of these meetings, as is the fact that about 60% of the present participants attended one or more of the previous Seminars.

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