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PREFACE

The symbiosis between particle physics and cosmology has virtually become a conjugal relationship. Hence the 9th biennial Course of the International School of Cosmic-Ray Astrophysics was designed to bridge these formerly disparate disciplines. This NATO Advanced Study Institute (ASI) took place at the Ettore Majorana Centre in Erice, Italy, June 20-30, 1992. Seventy participants from 17 countries enjoyed the opportunities for lively interactions as much as they benefitted from the stimulating lectures. This volume is based on a selection of lectures and shorter talks presented at the sessions.

Warm thanks are due to my co-director, Prof. J. P. Wefel and to co-editor Dr. Rein Silberberg for their co-operation. The support of NATO's Scientific Affairs Division and of Dr. L. V. da Cunha, Director of its ASI Programme, was invaluable. We also acknowledge important contributions by the following: Prof. A. Zichichi, Director of the Majorana Centre and its dedicated staff; the Italian Ministry of Education; the Italian Ministry of Scientific Research; the Sicilian Regional Government; the National Science Foundation of the USA, the European Physical Society, and Mrs. Shirley Ratner of Bethesda, Maryland.

The Scientific Advisory Committee consisted of Profs. P. V. Auger, G. P. S. Occhialini, B. Rossi, M. M. Shapiro, R. Silberberg, J. A. Simpson, J. A. Van Allen, J. P. Wefel, and A. Zichichi. All of the foregoing persons and agencies helped make this ASI a memorable experience for the participants.

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