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A. Ceresole C. Kounnas D. Lüst S. Theisen (Eds.)

# Quantum Aspects of Gauge Theories, Supersymmetry and Unification

Proceedings of the Second International Conference  
Held in Corfu, Greece, 20-26 September 1998



Springer

## Editors

A. Ceresole  
Dipartimento di Fisica, Politecnico di Torino  
Corso Duca degli Abruzzi 24, I-10129 Torino, Italy

C. Kounnas  
CNRS  
24, rue Lhomond, F-75231 Paris Cedex 05, France

D. Lüst  
Institut für Physik, Humboldt-Universität zu Berlin  
Invalidenstrasse 110, D-10115 Berlin, Germany

S. Theisen  
Sektion Physik, Universität München  
Theresienstrasse 37, D-80333 München, Germany

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# Preface

The second international conference organized by the TMR network ‘Quantum Aspects of Gauge Theories, Supersymmetry and Unification’ was held in Corfu, Greece, September 20–26, 1998. It was an integral part of the ‘6th Hellenic School and Workshop on Elementary Particle Physics’, which was organized by the Corfu Summer Institute on EPP. We thank George Zoupanos for his invitation to Corfu. Together with G. Koutsoumbas, I. Moraiti and N. Tracas he also took care of the local organization. We thank them for their contribution to the success of the conference.

The main theme of the conference was the interconnection between string theory and gauge theory. These very recent developments draw from many aspects of string theory, supergravity and supersymmetric gauge field theory. For students starting their research there is a great deal of background material that they have to absorb in order to be able to follow current developments. With this in mind we have, as in the previous conference of this TMR network and the conferences of the previous SCIENCE network on ‘Gauge Theories, Applied Supersymmetry and Quantum Gravity’, included pedagogical lectures on background material and recent developments in our field. We want to thank Bernard de Wit, who is associated to the network and Renate Kallosh, Robbert Dijkgraaf, Michael Green, Eliezer Rabinovici and John Schwarz whom we invited as external speakers, for their effort in preparing and presenting their lectures. Their extensive lecture notes will make these proceedings a valuable reference for a long time to come.

In addition to the pedagogical lectures the conference also included shorter presentations of the research done within our TMR network, complemented by external speakers who attended the meeting. Most presentations were by young researchers: advanced Ph.D. students and postdocs. These contributions are also included in the proceedings.

The Corfu conference marked the half-time of our four-year TMR project and, according to E.U. rules, we underwent a midterm review. This was conducted by H. Morsi from the E.U. Commission and by P. Orland from the University of Bergen as an external reviewer. We thank them for their constructive remarks and criticism. We are confident of having succeeded in convincing them that we have a very active and lively network and that our research is vital to the progress in our field. These proceedings are ample evidence.

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