

Preface

These Proceedings contain the talks presented at the workshop on “Novel Physics in Low-Dimensional Electron Systems”, held at the Institute of Mathematical Sciences (IMSc), Madras, India, from 9 to 14 January 1995. The major aim of the meeting was to focus on the rapidly developing field of low-dimensional electron systems. There were several review talks by recognized leaders in the field, covering a wide range of developments, as well as a number of talks on more recent developments. The workshop was attended by about 100 participants. The inaugural talk was presented by Professor K. von Klitzing of the Max-Planck-Institut für Festkörperforschung, Stuttgart, Germany. The theme of the talk was “From microelectronics to nanoelectronics” and he presented a general overview of the various topics covered in the meeting. He also pointed out the relevance of these topics to the technology of the future. Professor T.V. Ramakrishnan of the Indian Institute of Science, Bangalore, presented a summary talk at the end of the meeting. In addition to the talks published here, there were also talks presented by R. Ashoori (MIT), A.H. MacDonald (Indiana University, Bloomington), P. McEuen (University of California, Berkeley), and A.S. Plaut (University of Exeter). There were also a few posters presented by M. Alatalo (Helsinki University of Technology), D. Hutchinson (Dublin City University, Ireland) and G. Vignale (University of Missouri, Columbia).

The success of the Workshop was particularly due to the number of leading researchers in the field from various countries who kindly accepted our invitation to attend the Workshop and present their high-quality contributions. I would like to thank Professor Peter Fulde for his help in getting the Proceedings published as a Special Issue of *Physica B*. I also thank Joseph Verheggen and Wouter Tukker from North-Holland for their help in bringing out the Proceedings in the present format.

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This meeting was the first of its kind in India and its one major goal was to give young researchers, particularly in India, the necessary exposure to this rapidly developing field. We hope that these Proceedings will serve the need of a much wider audience.

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