## **Preface**

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The International Commission on Physics Education (ICPE) was born out of the realization that unlike research speciality areas, physics education lacks spontaneous international linkages even though teaching of physics and education of physicists is of concern to all. Indeed, there is a great deal of commonality in the problems faced by various countries despite the diversity in their social and cultural fabric. Then it has been our mission to simulate and facilitate international cooperation and the worldwide development of physics education and research by promoting the exchange of information and views at all levels among the members of the international community.

From its inception, ICPE has endeavored to bring out resource material for physics educators. Visualized as the starting point of a long term world-wide collaboration, Connecting Research in Physics Education with Physics Teacher Education, first published by the commission in 1998, with Andree Tiberghein, Leonard Jossem and Jorge Barojas as editors, has proved to be a timeless resource as the research-based pedagogic insight it provides remains universally valid even today. Freely made available to the physics education community in an electronic form at the Commission's website and also distributed on CDs at the commission's conferences, the book continues to be widely accessed and downloaded from across the world. Predictably, the reported pedagogic importance of this resource book and its continuing usefulness led us to conclude that it would not be appropriate to think in terms of an update. Rather, there is a need for a second volume covering topics not discussed, many of which have become salient since the book was first prepared. This book was conceptualized at the Commission's meeting at Delhi in August 2005 and Matilde Vicentini readily agreed to undertake the onerous task of putting together a complementary second volume with Elena Sassi as co-editor. So here it is, a wonderful addition of articles to the original, equal in importance and usefulness. Much more than a compendium volume, this book is of great significance in its own right.

Paul Black, in his incisive preface to the first volume delineated four critical conditions for a work of this type to be produced. The support of the parent organization IUPAP and the commission's meetings on the sidelines of our conferences have given us ample opportunities to satisfy the first three of these by providing occasions for people to meet, create networks of talented individuals and experts from across the world, and access adequate finances. His fourth condition, the most important and most difficult to fulfill — having individuals with vision, energy and zest for hard work to turn an idea into a product — has been satisfied with relative ease as our editors for this volume epitomize the necessary virtues. With immense skill, they have converted this endeavor to be much more than mere collation of commissioned articles. The contributors have given liberally of their time and expertise, participating in the creation of this resource with a passionate belief in the larger cause of teacher education. We hope this publication will catalyze vibrant discussions, generate further exchange of experiences, impact praxis and foster greater collaboration amongst physics teachers at all levels, across the world.

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