

## Foreword

This special issue of the Brazilian Journal of Physics puts together peer-reviewed papers presented at the 12th Brazilian Workshop on Semiconductor Physics (BWSP-12), which was held in São José dos Campos, São Paulo, during April 4-8, 2005.

Following the tradition of the series of biannual conferences (Campinas 1983; São Paulo 1985; Campinas 1987; Belo Horizonte 1989; São Paulo 1991; São Carlos 1993; Rio de Janeiro 1995; São Paulo 1997; Belo Horizonte 1999; Guarujá/Campinas 2001 and Fortaleza 2003), this São José dos Campos 2005 conference covered all the main research topics in the frontier of semiconductor physics. Nineteen invited lectures were given by international outstanding scientists, including a Plenary Lecture and a short tutorial, and 190 contributed papers were presented in extended poster sessions divided as Bulk, defects and impurities; Surfaces and interfaces; Heterostructures, quantum wells and superlattices; Nanostructures (by far, the one with more contributions); New or hybrid materials/ structures; Novel devices; Spintronics; and Organic semiconductors. These Proceedings bring state-of-the-art reports on all these topics.

220 scientists, from 19 different countries and 14 different states of Brazil, have attended the BWSP-12, confirming the growing internationalization of the meeting, as well as an important increase in the number of independent research groups on semiconductors in Brazil. Together with the National Institute for Space Research (INPE) and the Brazilian Physical Society (SBF), the BWSP-12 also celebrated the 2005 World Year of Physics.

With “muitas saudades”, we have also paid homage to our friends that have passed away, in particular to Professor José Roberto Leite, who was co-founder of this series of conferences, and one of the main leading scientists in our community.

Thanks go to all participants, organizers and sponsors (see [www.las.inpe.br/BWSP12](http://www.las.inpe.br/BWSP12)).

Erasmio A. de Andrada e Silva and Antonio José Roque da Silva  
Guest editors  
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