

## XX Brazilian National Meeting on Particles and Fields

### Foreword

The XX<sup>th</sup> Brazilian National Meeting on Particles and Fields took place in São Lourenço, Minas Gerais, Brazil, during the period October 25-29, 1999. The Meeting consisted of six plenary and twelve parallel sessions, about 140 short oral talks, mostly by young physicists presenting results of their current work, and a poster session with 132 posters.

On the first night of the Meeting we have organized a ceremony to honor the physicist Gleb Wataghin, who was born in the Ukraine 100 ago and whose importance to the development of physics in Brazil is enormous and hardly forgotten. His discovery of the multiple particle production inspired the logo of our Meeting. During about one hour Prof. E. Predazzi, from the University of Turin (Italy), and Prof. C. Dobrigkeit Chinellato, from UNICAMP (Brazil), shared with us their experiences with Prof. Wataghin, both in Italy and in Brazil.

To commemorate the twentieth anniversary of our meetings we have organized a round table entitled “20 years of Brazilian National Meeting on Particles and Fields: a retrospective and prospective look”. The debate had the participation of the organizers of the first meeting : Prof. A. Santoro (CBPF), Prof. C. O. Escobar (UNICAMP), Prof. E. M. Ferreira (UFRJ), Prof. G. da Costa Marques (USP), Prof. R. Köberle (USP), Prof. R. Shellard (CBPF) and Prof. Z. D. Thomé (UFRJ).

For the first time we have had in our meeting a special session devoted to scientific diffusion of our field. This was composed by two talks of about one hour each, which aimed to explain in a simple way to the local community something about the status of our field of research. This event was an enormous success, more than 250 young people of age between 12 and 20 years old listened to the excellent reviews: “ A Brief History of the Universe ” given by R. Rosenfeld (IFT/UNESP) and “Blackholes: A journey to the Depths of the Universe” given by D. A. T. Vanzella (IFT/UNESP).

Yet we had another reason to felicitate ourselves after these 20 years. The Meeting which was held at Hotel Primus in São Lourenço, was the biggest one in the history of our meetings, it was attended by more than 300 participants.

The plenary and parallel talks were given by invited speakers summarizing the scientific achievements in their fields of specialization. Those speakers were invited to provide us with a written contribution of their presentation, which we have compiled in the present volume. It includes all the 12 parallel talks and 5 of the 6 plenary talks.

We owe many thanks to all of those who contributed to the success of this Meeting: the chairpersons, the plenary and parallel speakers, the participants that turned up and the SBF's secretaries.

We also would like to thank the following institutions that financially supported our meeting: CAPES, CLAF, CNPq, FAPERJ, FAPESP and FINEP. The kind support of AMR/COMPAQ and the staff of Hotel Primus was also very much appreciated. Finally we would like to express our gratitude to SBF, and specially to Prof. S. R. Salinas editor of the Brazilian Journal of Physics (BJP), for accepting to publish for the first time in the BJP the proceedings of our Meeting.

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