FOREWORD

In the framework of the activities of the French IPEV (Institut Polaire Emile Victor) and of the Italian PNRA (Programma Nazionale di Ricerca in Antartide), an agreement has been signed by the two countries to develop and operate a joint permanent station in Antarctica; the site for such base has been selected to be Dome-C, on the high Antarctic plateau, at 3280 m elevation and with a very low water vapor partial pressure. The site is believed to be one of the best possible locations on Earth to conduct astronomical observations.

At the date of this Capri workshop, the construction of the CONCORDIA station is nearing completion and it is planned that winter-over operations will be initiated in 2005. Very successful scientific activities have already been performed at Dome-C, both in the field of glaciology, with the ESF-EC supported European ice drilling program EPICA, which has been nearing completion in the campaign 2002-2003, and with several other programs including atmospheric research. It is expected that a very promising activity may be conducted in the near future in the field of astronomical observations.

The workshop has brought together over 70 astronomers and scientists from the two partner countries, Italy and France, as well as leading scientists from European countries, the USA, Australia and others, especially those who are active in polar research through the facilitation of The European Polar Board. The workshop has taken place over three days and has generated a series of scientific and organizational recommendations for the future of Astrophysical research at this unique location in Antarctica.

Several programmes of astrophysical research have been already funded by the two countries (France and Italy), either separately or in cooperation; visible light and IR solar and stellar seismology, mm, sub-mm and IR astronomy are the objectives already addressed; instrumentation for site testing is being deployed to better characterize the parameters of the site.

Proposals have been made by several US and Australian institutions to participate in the development of telescopes to install at Dome-C, and due to more and more likely high stability of the site atmosphere, a growing interest has been seen from the High Angular Resolution experts, who are thinking of the future direct observations of planets outside the solar system.

The Concordia Steering Committee, a joint French-Italian committee which is directing scientific and management activities for station CONCORDIA, has approved the proposal to hold this exploratory workshop, under the sponsorship of the European Polar Board (EPB), an expert committee of The European Science Foundation (ESF), to promote it in the context of the European Strategic Framework in Polar Research EUROPOLAR. The Steering Committee has expressed appreciation of the large number of good papers presented, and of the enthusiasm of the community for the perspective of working at Dome-C.

The Scientific Organizing Committee for the workshop was composed as follows:

Maurizio Candidi IFSI-CNR
Paul Egerton European Polar Board
Therese Encrenaz Observatoire de Meudon
Attilio Ferrari INAF
Eric Fossat (chair) Universite de Nice
Michel Glass Observatoire ocanographique Villefranche sur mer and IPEV

Luigi Smaldone Universit di Napoli
The Local Organising Committee (LOC) was composed of Luigi Smaldone (Chair), Angela Rossetti, Barbara Moscatelli, Antonietta Rossetti and Stefania Russo. They all together helped a lot for providing the participants a wonderful atmosphere and working conditions.
The proceedings edition was in the hands of Alessandra Cevolani. What you are reading is the result of her work and certainly deserves our congratulations

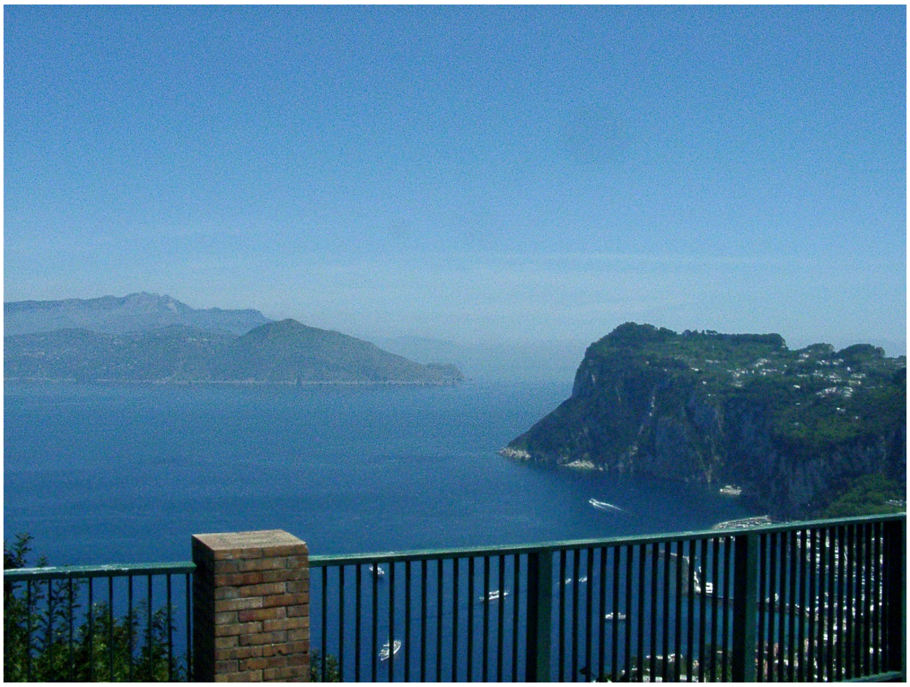

Fig. 1. A view from the workshop hotel terrasse