

**Proceedings of the**  
**12<sup>th</sup> International Magnet Measurement Workshop (IMMW-XII)**  
*European Synchrotron Radiation Facility, BP 220, F-38043 GRENOBLE Cedex France*

## **Foreword**

The 12<sup>th</sup> edition of the International Magnet Measurement Workshop (IMMW) took place at the European Synchrotron Radiation Facility (ESRF) in Grenoble, France from 1<sup>st</sup> to 4<sup>th</sup> October 2001. The Workshop was open to all professionals in the field of magnetic measurements. It consisted of presentations by, and discussions among, the workshop participants on the subject of current technology in magnetic field measurements. 59 people from 28 different institutions attended the event.

The format of the program was similar to other workshops in this series. The scientific program consisted essentially of oral presentations. In view of the large number of presentations submitted in electronic format, it was decided to publish the proceedings as a CD-ROM. The presentations submitted in paper format have been scanned and converted to PDF files.

Although traditionally these workshops focus mainly on the field measurement of dipole, quadrupole or sextupole type accelerator magnets (conventional or superconducting), the organisation of this workshop in a synchrotron radiation source like the ESRF was a unique opportunity to dedicate a full session to undulator and wiggler magnet measurement. Such magnets need to be built with very stringent field profile specifications, as well as integrated multi-poles. Although the field measurement is made on the same type of sensors (Hall probe, coils, RMN), the details of the implementation deviate significantly (sensor precision, mechanics, electronics, data acquisition, shimming).

The workshop participants had the opportunity of visiting the ESRF Insertion Device laboratory where more than 80 different ID segments have been produced and shimmed in the last 10 years. The control room of the ESRF accelerator complex (linac, booster, storage ring) and an X-ray beamline were also visited. I thank Joel Chavanne, Laurent Farvacque, Laurent Hardy, Pierre Van Vaerenbergh, Jean-Luc Revol for their efforts in guiding all the attendees during the visit.

An industrial exhibit was organised with 7 vendors. Apart from providing an opportunity to look at the latest product offerings by the leading manufacturers and to discuss individual needs, the exhibits also helped defray certain expenses of IMMW12.

I would like to thank the members of the International Advisory Committee for their valuable input in the organisation of the Workshop and in particular Malgorzata Tkatchenko whose numerous e-mails and telephone conversations had a large impact on both the practical and scientific aspects of the event.

Sincere thanks are also due to the Workshop Secretary, Anne Dély, who efficiently handled all the administrative and organisational matters as well as the production of the CD-ROM. I also acknowledge very useful support from Karen Clugnet and Anne-Marie Volpe-Markowski and to Oleg Chubar for his help in setting up the registration system on the web site.

Pascal Elleaume  
Workshop Chairman