

Foreword

The 26th International Free Electron Laser Conference and 11th FEL Users Workshop were held between August 29th and September 3rd, 2004 at the beautiful seafront location of the Stazione Marittima congress centre in Trieste, Italy. The Conference and Workshop, known as FEL2004, was organised by Sincrotrone Trieste, home of the third generation synchrotron light source ELETTRA, the EU funded storage ring free electron laser (EUFELE), and the VUV single-pass FEL project FERMI. A total of 287 participants from 18 different countries attended the conference, making this one of the biggest ever conferences. A total of 62 talks and 158 posters were presented and 184 papers were accepted for publication in these proceedings.

FEL2004 marks the 25th Anniversary of the International FEL Conference, and incidentally 20 years since the first FEL conference held in Italy, in Castelgandolfo. This marked an appropriate moment look back on the achievements since then, and to consider the future prospects for the field as well as the FEL conference itself.

At the time of the first international FEL meeting held at Stanford in 1979, later classified as the first of the International FEL Conference series, only one FEL had actually operated, namely the Stanford oscillator, which first lased in 1977. Since then remarkable progress has been made in the power and spectral range of operating FELs as well as in their scientific applications. The programme of FEL2004 reflected the very active nature of the field, and we thank the members of the International Programme Committee for putting together a balanced program highlighting both the current activity and the exciting prospects ahead. We also thank Mike Poole for a lively personal summary of the FEL field over the last 25 years in the concluding session.

The social programme of the conference included an excursion to the Roman ruins and the magnificent 11th Century basilica with its impressive floor mosaics in Aquileia, and to the town of Grado with its sandy beaches, its old historic centre, and picturesque harbour. The excursion was followed by a banquet in the Savoia Excelsior Hotel opposite the conference centre. Following tradition, the FEL Prize was awarded during the banquet and this years recipients were Hiroyuki Hama and Vladimir Litvinenko for their fundamental and pioneering contributions in Storage Ring Free Electron Lasers (SRFELs).

We would like to express our sincere gratitude to Sincrotrone Trieste for hosting the Conference and to the members of the Local Organising Committee, and in particular the Local Organising Coordinator Carlo Bocchetta, for their hard work in taking care of the many organisational aspects of the conference. Special thanks are due also to Ivan Andrian of Sincrotrone Trieste and his team for organising the abstract and paper submission as well as the new electronic proceedings.

On behalf of the International Executive Committee (IEC) and local organising committee we would also like to express our thanks for the generous financial support received from the following institutions: Area Science Park, Italy, the Council for the Central Laboratory of the Research Councils (CCLRC), UK, Consiglio Nazionale delle Ricerche (CNR), Italy, Deutsches Elektronen-Synchrotron (DESY), Germany, Ente per le Nuove Tecnologie, l'Energia e l'Ambiente (ENEA), Italy, the Istituto Nazionale di Fisica Nucleare (INFN), Italy, the Regione Autonoma Friuli Venezia Giulia. The conference also benefited from the financial support of the 12 industrial exhibitors, listed elsewhere. All of this helped to balance the conference budget as well as to provide financial support for 10 young researchers who would not otherwise have been able to attend the conference.

This year sees an end to a 20 year old tradition to publish the Conference Proceedings in the journal Nuclear Instruments and Methods in Physics Research. This decision was reached after an intense debate over several months amongst the members of the IEC, taking into account the opinion of the FEL community who had responded in November 2003 to a questionnaire on publication policy with a 2:1 vote in favour of changing to electronic publication on the Joint Accelerator Conference Website (JACoW). The organisers of FEL2004

hope that the rapid publication and the benefits of being included in the JACoW group of conferences will serve the FEL community well in future years.

In keeping with the usual policy, only those papers presented at the conference, either orally or as a poster, are included in these Proceedings. The change in publication policy has also implied a significant change in the refereeing of the papers. Since the proceedings do not have refereed status, the decision has been taken to only perform a light refereeing by members of the International Program Committee to ensure that minimum standards of readability and content are met. At the same time, authors have been encouraged to submit extended articles to the online refereed journal Physical Review Special Topics Accelerators and Beams (PRST-AB), which has agreed to publish a Special Edition of FEL Conference related papers.

Another issue that causes continuing debate amongst the FEL community, which surfaced also at this years conference, was the question of whether to maintain annual conferences or change to conferences in alternate years. This year the IEC debated the issue at length and found itself closely divided. To resolve the issue, a poll of the conference attendees was organized in the form of a show of hands. This indicated an approximate 2:1 majority in favour of the *status quo*, which subsequently swayed the IEC to vote in favour of retaining annual conferences. Having received and considered bids for FEL2007, the decision was then taken to award the organisation of FEL2007 to the Budker Institute of Nuclear Physics in Novosibirsk, Russia.

On its 25th anniversary, this years International FEL Conference therefore marks a significant change in the way its proceedings are published. Other important aspects of the conference remain the same for some time at least: for example, the traditional annual conference, a testimony to the fact that there is no lack of interest in hosting or attending FEL conferences and of the exciting times ahead for the FEL field.

René Bakker
Luca Giannessi
Marino Marsi
Richard P. Walker