

Preface

Electronic publishing in mathematics is a topic of growing interest at mathematics conferences. Though this theme cannot be considered as a part of the scientific program, the new presentation and management facilities offered by electronic publications ask for a forum at these meetings where personal experiences could be exchanged, new developments could be discussed and the impact on the dissemination of the achievements in mathematical research could be observed.

One of the special events of this type was the workshop on Electronic Information and Communication in Mathematics at the Tsinghua University in Beijing at the end of August 2002. It was a satellite conference to the ICM 2002 in Beijing. The workshop succeeded to give a comprehensive survey on the state of the art. This led to the idea to repeat such a comprehensive meeting at other big conferences. The natural candidate for this was the 4th European Congress of Mathematicians, which took place in July 2004 in Stockholm. A satellite conference with the title “New developments in electronic publishing of mathematics” has been arranged immediately preceding to the ECM 4. Two workshops were included, one dealing with EMANI (Electronic Mathematics Archiving Network Initiative) and the other with the WDML (World Digital Mathematics Library). As a smaller predecessor to this event was a one day session on electronic publications at the AMS/SMM meeting in Houston in May 2004. The current collection publishes papers presented at one of these events.

The following provides a list of themes present belonging to the scope of the events: models and standards for information and meta-information representation; methods and tools for data-search, discovery, retrieval and analysis; access to distributed and heterogeneous digital collections (interoperability, scalability, relevant information discovery, meta-information integration); intelligent user interfaces in electronic libraries, agent technologies, co-operative work on the data; advanced technologies of digital collection generation in mathematics; authoring tools and preparation of electronic publications in mathematics; business models for the generation and distribution of digital collections; data security and information protection.

The contributions dealt with both sides, the current practical work for the production and distribution of electronic information in mathematics and structural investigations for their management. Taking into account the rapid development in the area of Electronic Information and Communication in Mathematics the editors decided to publish the proceedings after the workshop. This gave the chance to include most recent developments, which partially were obtained even shortly after the events.

Finally, the editors want to thank all parties making the two events possible and all who contributed to its success. The support of Ari Laptev deserves a special mention, because without him it would have been impossible to settle the workshop in Stockholm during a period where all Swedish people went out for celebrating midsummer night. Special thanks should go to the sponsors making the financing of the event possible, in particular to Fachinformationszentrum Karlsruhe publishing the Proceedings and Edeltraud Buchsteiner-Kießling bringing the articles into a final format suitable for posting in the web, storing on CD and printing on demand.

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