Preface to the CD-ROM

The attached CD-ROM contains the contributed papers to the 34th EPS Conference on Plasma Physics, held at the ***Warsaw Congress Centre*** from the 2nd to the 6th of July, 2007. The documents are provided in PDF (Adobe Portable Document) formatted file, with one file per submission. This was chosen for its portability across different computer platforms and the availability of free PDF viewers from Adobe and others.

The submission procedure

This conference is the ninth that has used the ELISE conference contribution submission program suite for the 4 page contributed papers and the sixth to use ELISE for the initial 1 page Abstract submission. ELISE was developed by Ch. Nieswand and B.P. Duval of the CRPP, Lausanne for the 1999 conference in order to a) provide a common, verified, engine for collecting the contributions in a readable form and b) permit the rapid publication of the contributions following the end of the conference where the interest in the contributions is most intense.

ELISE was designed to gather the conference proceedings electronically and provide a rudimentary Web-HTML server interface following the conference to the registered participants. Since, in 2002, ELISE has basically returned *home*, one of the original authors, B.P. Duval, took the opportunity to revisit the initial ELISE program to correct and/or enhance the package performance, and to provide further programming to assist future conferences in tasks such as distribution of the 1 Page Abstracts to the referees and providing a number of the necessary steps from the 4 page contributions to producing the final CD-ROM and post-conference Abstacts Booklet. In keeping with the original ELISE software, all these tools use freely available software in a Linux environment and attempt to limit, as far as is possible, the use of ANY commercial software. (see section on Technical Information below).

For the 2007 EPS conference, ELISE was operated from the CRPP site in Lausanne with the ELISE operator also a member of the conference LOC from the **elise.epfl.ch** site.

Previous conference CD information is provided on the **http://epsppd.epfl.ch** site

Following the initial 1 page Abstract submission, each contribution is assigned a unique ELISEID. The Abstracts are then electronically marked and collected by Category into packages that were delivered to the Programme Committee members. Preliminary lists of accepted abstracts were returned from the Committee members who met to finalise the acceptation of Invited, Oral and Poster contributions.

The participants were then informed of the committee's decision and were assigned a PaperID and a password to be used during submission of the 4 Page Contribution. Two weeks before the conference start, collections of the 1 Page Abstracts were made available on the conference web server for download by the conference participants.

At the end of the conference week, ~530 4 page abstracts had been collected and confirmed by ELISE with ~16 contributions ready for acceptance but un-confirmed by their authors before the deadline. Over 520 of these were collected in their final form before the conference without operator intervention. As usual, on-site help was made available for people who had difficulties submitting their contributions through ELISE. Some participants requested small changes to their contributions to correct typos, etc. and it was sometimes necessary to obtain the original document to create an acceptable contribution. The Author of this text would, yet again, like to use this rather rather obscure place to encourage contributors to "help-themselves" by ensuring their contribution is complete before the end of the conference week. This year, in a break from previous years, the LOC accepted >30 contributions that were not directly passed through the Elise collection mechanism and there was no request for an Elise Help Desk during the conference- The result was that ~30 papers were accepted by the LOC without having been first checked through the Elise paper collection system- The LOC then had to submit the papers to Elise following the conference completion. None of the contribution contents were changed after the end of the conference, so the conference integrity was never in question.

The evolving PDF format and some surprising incompatibilities of some contributions with different versions of the Adobe-Reader program. There was still a particular problem with the OSX PDF writer which, especially for older versions of OSX, produces PDF files that are very slow to interpret by the ghostscript software used in the ELISE rendering. In general, submissions that converted Postscript to PDF with the Adobe or the Ghostscript software caused the least problems. It is also to be noted that more people are now able to use Postscript fonts in Tex formatted submissions which considerably enhances their on-screen appearance. Since the newer features of the PDF format from Adobe are not required for paper submission, it is still advised that submissions only up to PDF version 1.3 (Acrobat 5) are used to ensure compatibility across the ever increasing range of PDF reader software

Finally, although the Programme Committee only wished for contributions that were actually presented at the conference to be processed for the CD-ROM, no such list was maintained- This is exceptional and will, I trust, NEVER happen again.

In total, 572 contributions are distributed on the CD-ROM.

About the CD-ROM

For the CD-ROM, a header and page number, internal to each document, were added to all pages of the contributions. In view of the absence of a Proceedings Book, papers to this conference are referenced in the following way:

Europhysics Conference Abstracts Vol. 31I **aa.nnn**

Where **aa** represents the session number (eg: P1, O3 etc.) and **nnn** represents the contribution number as given by the programme committee.

The table of contents and authors' index are available on the CD in HTML form with links to the PDF documents. Each PDF documents also contains links to the next and previous pages of the proceedings and the conference index. It should be noted that, as indicated in the conference instructions, only contributions presented at the conference appear in the conference proceedings, resulting in some non-available contributions in the final CD-ROM.

The emphasis at this conference was again to provide the best possible CD-ROM proceedings with the minimum delay following the end of the conference. Although every effort has been made to ensure the abstracts can be viewed and printed with both Adobe Reader version 4 and 5, experience has shown that, at the time of the conference, Acrobat Reader V5 offers the greatest compatibility with the PDF writers used by the conference authors and is available for a wider range of platforms (notably including UNIX).

The HTML indexes have been written in simple HTML that should be readable by most all web browsers.

If necessary, the papers can also be accessed directly in the *pdf* directory of the CD-ROM where the file names correspond to the conference reference **aa.nnn** above.

Hints on Printing

Most of the PDF documents will print on a medium range printer with no problem. (Acrobat 8.1 is now available on most platforms and some free readers (evince, xpdf etc.) also work well
Since most computers are much more powerful than printers, some of the more complex graphics are better rendered by the computer before printing. This is indeed the way most cheaper PC printers operate by first making the image in the Computer and then spooling the result to the printer.
Some of the graphics in the PDF files are complex and require long and often arduous calculation inside the printer. If there are problems in printing particular documents, it may be easier to use this *pre-rasterisation* technique. On PC machines, this is often the default and on Unix machines this can most easily be achieved with programs like a2ps which pass the file through ps2pdf from Ghostscript producing a pixel based output file. All of the PDF files printed quickly on a mid-priced printer in this way. Your milage may, unfortunately, vary.

Technical Information

Although the papers on the CD-ROM have all been further processed following submission, their quality on screen and when printed still

depends on how they were prepared by the authors. Many PDF drivers have been used from many different text editing programs during this conference which sometimes results in only *partially correct* PDF files, according to the PDF standard. At the time of writing, the PDF format can still, however, be regarded as *state of the art* for document exchange between participants from all over the world and features intrinsic internal compression which is suitable for transmission over the internet.

In an effort to check the files as soon as possible they were all printed after submission. The files all open to screen in Acrobat 4 5 7 and 8 under a modern Linux installation. They have all be printed with Acrobat4 and a recent pdf2ps (Unix) which is part of the GhostScript software suite.

With ELISE, the electronic submission and rapid post-conference availability of the contributions and web access to all the previous conferences that have used electronic submission justifies the choice of an official, published and maintained document standard such as PDF.

From the original design, ELISE attempts to use only freely available software in keeping with the intention of providing the software suite to successive conferences at a minimum cost and largest support base. It is currently based on a modern LINUX distribution (Fedora 6 at the time of writing) with Apache 2 web-server software. The documents are processed by a modified version of GhostScript and all scripting and CGI programming is performed in the PERL language.

In order to handle problems with the PDF files, a copy of the full Adobe Acrobat software, and possibly the Adobe Illustrator software, should be considered a must. This software was also used extensively in the production of collections of PDF contributions into single files (for the referees, pre-conference Abstract collections etc.)

In conclusion, ELISE is adapted to handle a large fraction of the computing requirements involved in the Electronic Submission, Contribution handling and Conference Proceedings production, but always in such a way as to allow a future LOC further possibilities.

A report on the current status of ELISE is available on request.

Basil P. Duval, Lausanne, October 2007

Comments

Following difficulties in providing PDF files that will print on the freely available Reader utilities, the ELISE data from this conference was examined for common failure scenarios.

ELISE was modified for this conference to verify more document parameters before acceptation. The page size of the submitted document, the margins and the used fonts were all examined and the author was requested to take remedial action when necessary.
It is a (lamented !) fact that a lot of participants use *Word* for creating their contributions. Participants using other products such as Tex or some of the Adobe product family often had far fewer problems with their submissions, but this may also be explained by a higher degree of computing knowledge for this participant category.

Whilst text has not often caused problems, the inclusion of complex graphics from a wide range of sources and particularities of each individual OS installation on personal computers, often results in only partially legal PS and PDF documents, as can be seen by the unpredictability of Reader codes to interpret the submitted contributions.
There is, in general, no simple cure for this situation. *Word* has a tendency to be misused on Personal Computers that are often badly configured so that although the result may show up fine on the creating machine, the same is not true on a remote machine.

The success of the participants in passing their contributions through ELISE with a ~90% hands-off rate, and finally an ~100% success rate may be considered as contunuing proof of the ELISE method. In general, it is the effort of the participants to furnish contributions of a reasonable format in the required time that is the main "engine" that makes ELISE function...