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Editorial from the Editor in Chief: Impact factors and open access publishing

The primary goal of *Laser and Particle Beams* as part of the Cambridge University Press is the dissemination of knowledge in our research field. How effective we are in this respect is not easy to determine. But the impact factor published annually in June by Thomson ISI® 2005 Journal Citation Reports (JCR), gives at least an indication and a method to compare other journals in the field. In this respect, *Laser and Particle Beams* is a journal with a very high ranking in the field of applied physics, but it also compares very well to journals in other field of physics. The impact factor of a journal gives an account of how often an average paper in the journal is referred to, in a two year time span after publication. The current impact factor of 2.59 is based on an evaluation conducted in 2005 of *Laser and Particle Beams* publications of 2003 and 2004. During the evaluation period (2005), *Laser and Particle Beams* publications were cited about 1000 times. The topics that attracted most attention were Fast Ignition (Deutsch, 2004; Mulser & Schneider, 2004*a*; Hora, 2004; Mulser & Bauer, 2004*b*), Inertial Fusion Targets (Borisenko *et al*., 2003), and Ion and Electron Acceleration in laser plasma and Ultrashort Pulses (Shorokhov & Pukhov, 2004; Osman *et al*., 2004; Malka & Fritzler, 2004; Limpouch *et al*., 2004; Pegoraro *et al*., 2004). However, the editorial boards of *Laser and Particle Beams* strongly encourage authors to submit their results in High Energy Density Physics, the emerging field of Warm Dense Matter, Pulsed Power and Accelerator Physics and Technology.

Our aim for the near future is to increase the speed of publication. Due to the fact that we publish only quarterly, the best we can do is to publish within half a year after a paper is submitted. Another aim is to increase the average size of accepted publications to about nine or ten printed pages. This will of course reduce the number of published articles, but we think that in this way, we are able to increase the quality, and offer an alternative to journals that require the authors to restrict their articles to four printed pages only, which sometimes makes it difficult to discuss the details of a research work.

Let me now address a different topic which is currently discussed in the scientific community and which may be linked to the topic discussed above. The editor of this journal was engaged in an effort to enable researcher's access to data obtained by large collaborations in high energy physics or astrophysics data from telescopes or satellites to do their own analysis (Hoffmann *et al*., 2003). We made the suggestion that these data should be available after a certain time span, like a year or two, which should give enough time for the collaboration to do their analysis. The CERN Axion Solar Telescope (CAST) collaboration went ahead and keeps the data obtained from this experiment on a server, which is not restricted, about one year after data taking. This is one part of the discussion. The other is the access to published results. To the best of my knowledge, two major research organizations like CERN, Geneva and the Max-Planck Society in Germany are encouraging their researchers to publish results in an open access journal. Open access publishing in this respect means that everyone has free access to a published paper without subscription to the journal. For a number of selected journals, Cambridge University Press will soon announce an offer to authors to take part in open access publishing. The details of this will be described in a later issue.

As a journals editor, I am interested in the question, if there is, or if there will be a positive correlation between impact factor and open access publishing. Currently *Laser and Particle Beams* offer the first issue of every year free; this amount to 25% of our annually publishing load. Among those papers that received the most citations last year, there are five from the March issue (Roth *et al*., 2005; Deutsch *et al*., 2005; Rosmej *et al*., 2005; Danson *et al*., 2005; Hoffmann *et al*., 2005), there are two from the June issue (Glinec *et al*., 2005; Trusso *et al*., 2005), one from the September issue (Borghesi *et al*., 2005), and two from the December issue (Badziak *et al*., 2005; Hora, 2005). This analysis seems to favor those articles that had open access, but on the other hand, they also had the longest time available to be recognized.

It will be very interesting to see the impact of open access publishing with regard to the aim to dissemination of knowledge. If we can improve on this we should support this movement.

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