

IoPP in 2002: Publishing Developments for the Physics Community

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Abstract. Institute of Physics Publishing (IoPP) is based in Bristol, England, and is the wholly owned subsidiary of the Institute of Physics, the British learned society devoted to the dissemination of physics, both pure and applied. The Institute has more than 37,000 members around the world, increasingly from outside the United Kingdom even though UK members form the single largest part of our membership.

This paper will focus on two areas of our publishing programme.

1. IoP's programme to digitise our entire journals archive going back to 1874
2. The Journal of High Energy Physics

1. Journal Archive: 1874–2002

The Institute of Physics, then the Physical Society of London, published its first journals in 1874. The earliest papers were published in the *Proceedings of the Physical Society of London* (1874-1967). Over the next 100 years, a number of titles grew out of the *Proceedings* as research in Physics increased. All of these journals still exist today, albeit in slightly different forms.

Journal of Scientific Instruments started life in 1922 and later became the *Journal of Physics E: Scientific Instruments*, which was published between 1968 and 1989, which then transformed into the journal *Measurement Science and Technology*, a leading journal still in the field of sensors and metrology.

The journal *Reports on Progress in Physics* was first published in 1934. In 2002 we were proud to publish Volume 65 of the journal.

The *British Journal of Applied Physics*, was first published in 1951. In 1968 it was renamed *Journal of Physics D: Applied Physics* when the *Proceedings of the Physical Society of London* were replaced by the *Journal of Physics* series.

Physics Education started life in 1966 and is still thriving today as a primary resource to support the teaching of Physics at KS-12 level (USA) / keystage 4 (UK).

2. Current Archive

Until recently subscribers to journals would, as part of their current subscription, receive electronic access to the current year of the journal or journals subscribed

to. In addition, they have access to full text, abstracts and references from that journal going back a further ten years. This current archive was free and formed part of the subscription. However, demand has increased for a deeper archive, not just stopping in 1991.

There have been a number of exciting developments from other learned society publishers with respect to their archives. In 2001, the American Physical Society completed digitisation of their entire archive of the *Physical Review* going back to 1893 and The American Chemical Society have digitised their archive going back to 1879. Moreover, commercial publishers such as Elsevier Science have also committed to going back to Issue 1 with their journal titles.

Digitisation of older journal content can only benefit libraries and researchers alike. For the library, it can save metres if not kilometres of expensive shelving space and reduce user request response times. For researchers it will be just as easy to call up a paper from 1895 as it is today for one published in 1995. No more waiting hours or even days to obtain the papers, which might assist in providing the breakthrough needed to conclude their research.

IoP is committed to digitising its entire archive going back to 1874 and the entire programme will be completed in 2002. The digitisation is being done in three phases. Phase 1 focused on the flagship *Journal of Physics* series, which in 1968 took over from the *Proceedings of the Physical Society*. Digitisation of the *Journal of Physics* from 1968 onwards was completed in Spring 2002. Phase 2 covered all other journals published between 1968 and 1990, where the current archive begins. This included a further 22 journals and was completed during Autumn 2002.

The third and final phase encompassed papers published before 1967, including the *Proceedings of the Physical Society* (from 1874-1967) as well as the *British Journal of Applied Physics* (1951-), *Journal of Scientific Instruments* (1924-1967), *Reports on Progress in Physics* (1934-) and *Physics Education* (1966-).

The entire project will be completed by December 2002. Access to the archive is free to all during 2002 after which time a small service charge is payable for continued access. Subscribers will then be able to access not just their subscribed to titles but everything published 10 or more years ago from all IoP journals.

IoPP is also offering an option to load the archive locally for a one-time fee. Moreover there is a further option to make a one-time payment to acquire the archive to load at a later date but in the meantime access the archive via IoPP's servers. This will enable libraries to catalogue the archive as an acquisition within a library OPACs and be safe in the knowledge that the institution will always have access to the archive, perpetual access if you like!

All the references from our articles have been captured so that it will be possible to link in and out of an IoPP paper and into an earlier paper elsewhere. Moreover, as part of the digitisation process we are capturing the full texts of each article in XML. This will allow the ability to search full texts of articles rather than just the headers (such as the abstracts, titles, authors, etc.).

3. Journal of High Energy Physics (JHEP)

It is not unreasonable to say that JHEP is one of the most important new journal launches of the last 10 years. It challenged the traditional journal publishing methods by offering a service that was free to both users and authors. It was launched by SISSA, the International School of Advanced Studies in Trieste, Italy in 1997 and was funded by a variety of different organisations around the world. Very quickly it made a dramatic impact on the high energy community who were already well served by existing journals as well as pre-prints and other services such as the arXiv at Los Alamos (now at Cornell) and the SPIRES service from Stanford University. However, in 2001 the funding ended. IoPP was then approached to ensure the continued life of the journal, which we were only too happy to do. IoPP is publishing the journal online on behalf of SISSA. From 2003 onwards there will be a small subscription charge, which will however be waived for researchers and institutions in developing countries. JHEP is now only available from the IoPP servers even though the peer review process continues to be managed by the staff at SISSA. The subscription to JHEP will enable online access to content from the current year (2003) as well as a one-year archive (2002). Material older than two years will still be available free of charge to the entire community, which maintains SISSA's policy of making the journal freely available to the widest possible number of users.

The scope of the journal is to publish research papers of the highest possible quality in relevant fields of experimental and theoretical physics. Topics include underground and large array physics, general relativity and gravitation, astro-particles as well as Quantum Field Theory. In the first five years, many important papers have been published by some of the world's leading research institutions. These include CERN, University of California Santa Barbara, the Institute for Advanced Studies at Princeton, MIT and Cambridge University from where more than 40 JHEP papers have been published alone since 1997.

JHEP publishes more than 50 new papers each month. In the first six months of 2002, it had published more than 330 papers compared to 606 papers in 2001 and 534 papers in 2000. The average cost per article (based on subscription cost divided by number of articles published in the subscription year) is less than \$1.50.

Its citation performance is also very impressive, having earned an ISI Impact Factor of 8.664 in 2001, one of the highest awarded for a research journal in Physics. In its first year of measurement, it received an Impact Factor greater than 4.

The *Journal of High Energy Physics* is available in IoPP's collection of research journals called Pack A together with the entire *Journal of Physics* series. It is also part of Pack H (High Energy Physics) with two other related journals, *Classical and Quantum Gravity* and *Journal of Physics G: Nuclear and Particle Physics*.