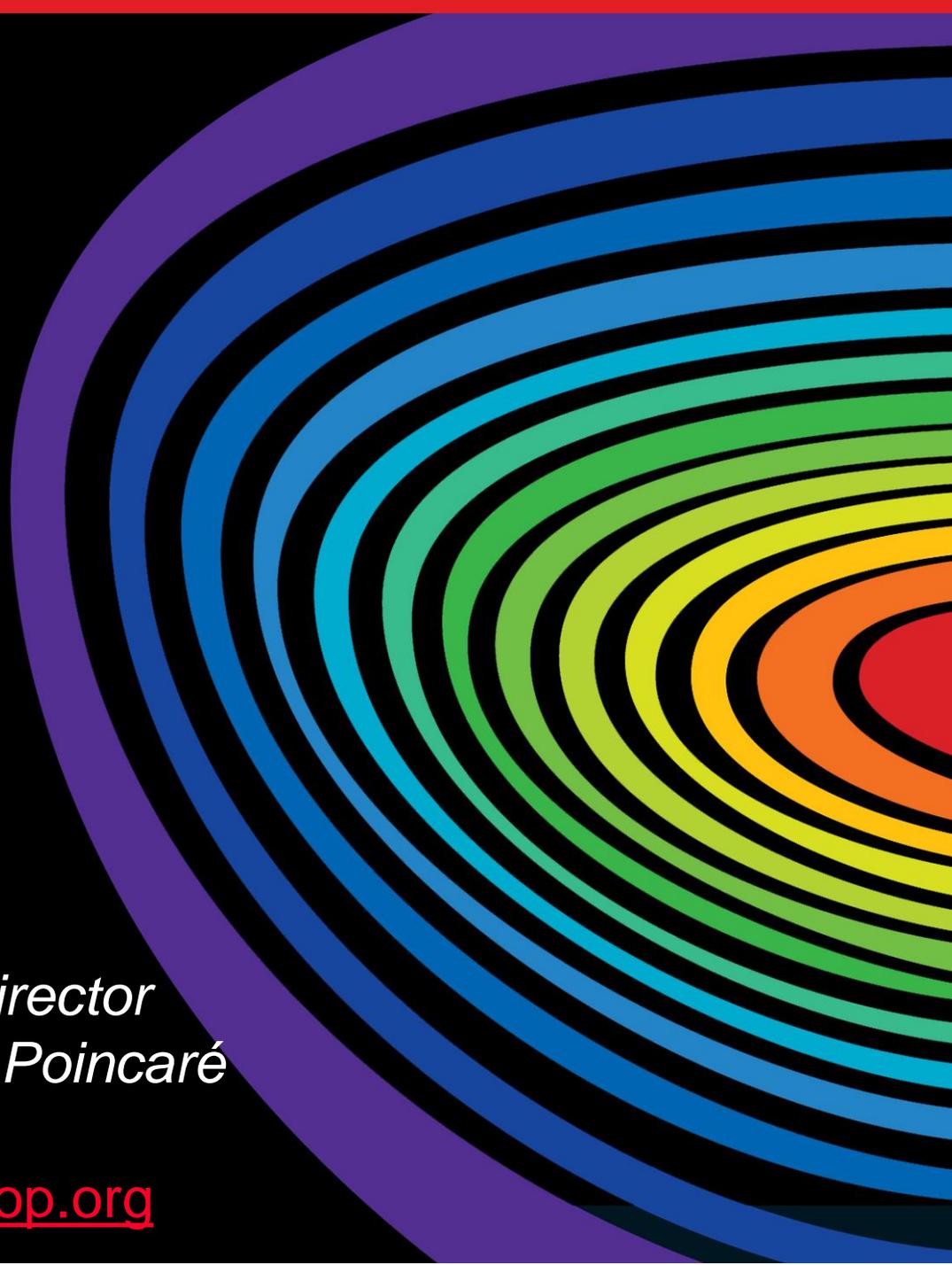


**IOP** Publishing

**Engaging with open  
access within the  
physics community**

*Dr Nicola Gulley - Editorial Director  
Presentation at Institut Henri Poincaré  
19 January 2012*

[nicola.gulley@iop.org](mailto:nicola.gulley@iop.org), [www.iop.org](http://www.iop.org)





## Overview

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- **IOP Publishing**
  - Who are we?
- **Experience, association with, and policy relating to, open access in the physical sciences**
  - What have been the challenges and opportunities
- **Discussions in the UK relating to Open Access**



## IOP Publishing

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- **Publishing company owned by the Institute of Physics in the UK**
  - All profit from the company is returned to the Institute to support their work, both in the UK, as part of the EPS and also with other societies and initiatives around the world
- **Publish 65 journals**
  - 29 solely owned by IOP, 36 partner titles
- **Three magazines**
  - Physics World, CERN Courier, ESRFnews
- **Several community web sites**
  - physicsworld, nanotechweb, medicalphysicsweb, environmentalresearchweb



## IOP Publishing involvement in Open Access

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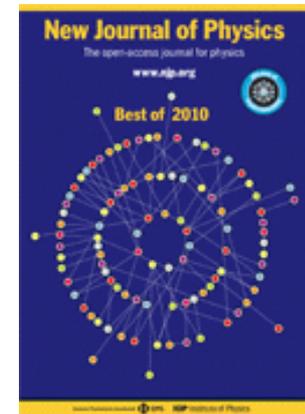
- **Pure gold open access**
  - Publish 7 fully open access titles
    - [New Journal of Physics](#) (partner title)
    - [Environmental Research Letters](#)
    - [Journal of Conference Series](#) (3 titles)
    - [Advances in Natural Sciences: Nanoscience and Nanotechnology](#) (partner title)
    - [Science and Technology of Advanced Materials](#) (partner title)
- **Hybrid gold open access**
  - IOP Owned titles and a number of partner titles including EPL
  - Full list can be found on the [IOP Publishing open access policy page](#)
- **Green open access**
  - ArXiv/PubMed central/Institutional repositories

## IOP Publishing's experience of Gold Open Access

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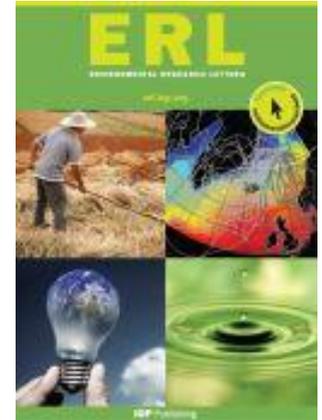
### ***New Journal of Physics (NJP)***

- Officially launched in 1999  
(pre 'open access' terminology)
- Partner journal owned and supported by IOP and the German Physical Society (DPG)
- First general physics open access journal
- Significant initial and on-going investment and support as it moves from 'novel experiment' to 'established journal'
- Vision remains to be a high quality journal with rigorous peer review, developing new ways of disseminating high quality research
- Article charge €990, IF 3.849 (Thompson Reuters 2010)



## Environmental Research Letters

- **Launched in 2006**
  - A new interdisciplinary title within IOP's core physics journals portfolio
  - Concise, high impact original research articles
  - Partnered with sister community website
    - [environmentalresearchweb.org](http://environmentalresearchweb.org)
- **The same author-pays business model and core characteristics as NJP**
  - Article charge €1100, IF – 3.049 (Thompson Reuters 2012)
- **Subject coverage across the whole of environmental science**
  - High impact, high urgency research Letters
  - Of broad interest to wide readership (including general public)
  - Open Access seemed like the right publishing model





## Key characteristics of the journals

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- **All content permanently free to read**
  - Funded solely by article charges
- **Broad Subject coverage**
  - NJP across the whole of physics
  - ERL across environmental science
- **Strict peer-review process and editorial criteria**
  - > 70% of submissions are rejected
  - Separate from payment – invoicing and payment separate from publishing decision
- **Electronic-only**
  - Free use of colour and multimedia and No article length restrictions
- **Author-friendly copyright**
  - Creative Commons Attribution-Non-Commercial-ShareAlike 3.0



## Who pays?

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**Most articles published in the journals are paid for.**

- Author, from grant money
- Funding body directly
- Institutions
  - Individual article basis
  - Centrally
- Other sources
  - Abdus Salam International Centre for Theoretical Physics (ICTP)
  - Journal fund



## How are authors from developing countries supported?

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### **NJP statement**

- Through the support of the [Abdus Salam International Centre for Theoretical Physics](#) (ICTP) we are pleased to be able to waive the article charge for authors based in the [64 countries](#) as identified by The World Bank for support as part of their International Development Association (IDA).

### **ERL statement**

- It is ERL's editorial policy to waive the article publication charge for authors from [Heavily Indebted Poor Countries \(HIPC\)](#).

This is in line with IOP's involvement and support of INASP and eIFL to make subscription journals available free or at low cost to qualifying countries.

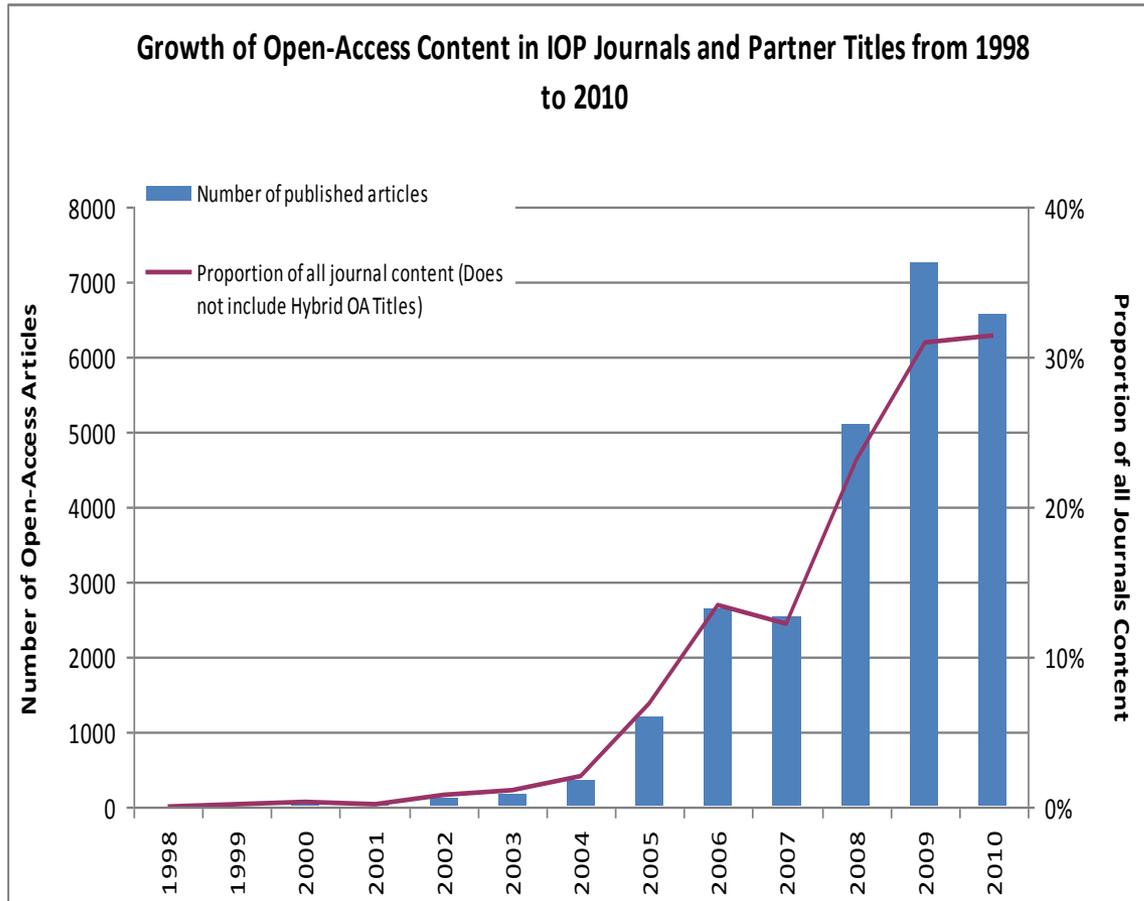


## Centralised funding agreements

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- **Financial support for OA publication fees is growing**
  - University of Calgary
  - University of Ottawa
  - Goettingen University
  - Max-Planck Society
  - University of Nottingham
  - Columbia University
  - Cornell University
  - Harvard University
  - University of California, Berkeley
  - University of Florida
  - University of North Carolina, Chapel Hill
  - University of Wisconsin, Madison

## Growth of open-access content in IOP journals



- **Content across all IOP titles (including partnerships)**
- **More than one-third of articles are now open-access**
- **IOP Publishing is one of the largest OA publishers in physics**



## **‘Hybrid’ Open Access**

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**Allows authors to publish in their journal of choice but pay an additional fee to make the final published version freely available online**

- **Launched in June 2011 across 23 IOP subscription titles**
- **Recognition of increasing demand from funding bodies and other organisations for open access**
- **Article charge**
  - €1950
  - Set at a level to support sustainability across the whole IOP journals portfolio
  - Article charge revenue will inform setting of future subscription prices; Customers will not pay twice



## Examples of factors influencing the article charge

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- **Gold or hybrid**
  - Hybrid OA journals incur additional transition costs while maintaining two publishing models
- **Print or online-only**
  - Online-only journals (such as NJP and ERL) do not incur costs associated with print or hard-copy distribution/storage.
- **Rejection rate**
  - A high rejection rate journal must generate revenue from fewer sources
- **Peer-review and production process**
  - Rigour and value added by the publisher is reflected in the article charge. Production is more than just copy editing! It includes addition of metadata, formatting for indexing and archiving, reference linking etc.
- **Future investment**
  - Publishers must remain agile to the demands of their communities

## Investing in the future - Video Abstracts

The screenshot shows a web browser window displaying the IOP Publishing website. The page title is "On the structure and topography of free-standing chemically modified graphene". The main content area features a video abstract player with a man speaking, and a text abstract to its left. The abstract text describes the mechanical, electrical, and chemical properties of chemically modified graphene (CMG) and reports on the study of its topographic structure using atomic force microscopy (AFM) and electron diffraction. The video player includes a progress bar and a "Download this video" button. The right sidebar contains sections for "Users also read", "Related review articles", "Share", "View by subject", and "Export". The top navigation bar includes links for "Home", "Search", "Collections", "Journals", "About", "Contact us", "My IOPscience", "Authors", "Referees", and "Librarians".

On the structure and topography of free-standing chemically modified graphene - Mozilla Firefox

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http://iopscience.iop.org/1367-2630/12/12/125010?fromSearchPage=true

Karl Berggren

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N R Wilson *et al* 2010 *New J. Phys.* **12** 125010 doi: 10.1088/1367-2630/12/12/125010

**On the structure and topography of free-standing chemically modified graphene**

IOPSELECT FOCUS ON CHEMICALLY MODIFIED GRAPHENE

N R Wilson<sup>1,4</sup>, P A Pandey<sup>1</sup>, R Beanland<sup>1</sup>, J P Rourke<sup>2</sup>, U Lupo<sup>1</sup>, G Rowlands<sup>1</sup> and R A Römer<sup>1,3</sup>

Show affiliations

Tag this article Full text PDF (2.03 MB) View as HTML

**Abstract** | References | Supplementary Data

Part of Focus on Chemically Modified Graphene

The mechanical, electrical and chemical properties of chemically modified graphene (CMG) are intrinsically linked to its structure. Here, we report on our study of the topographic structure of free-standing CMG using atomic force microscopy (AFM) and electron diffraction. We find that, unlike graphene, suspended sheets of CMG are corrugated and distorted on nanometre length scales. AFM reveals not only long-range (100 nm) distortions induced by the support, as previously observed for graphene, but also short-range corrugations with length scales down to the resolution limit of 10 nm. These corrugations are static not dynamic, and are significantly diminished on CMG supported on atomically smooth substrates. Evidence for even shorter-range distortions, down to a few nanometres or less, is found by electron diffraction of suspended CMG. Comparison of the experimental data with simulations reveals that the mean atomic displacement from the nominal lattice position is of order 10% of the carbon-carbon bond length. Taken together, these results suggest a complex structure for CMG where heterogeneous functionalization creates local strain and distortion.

00:00 04:54

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start Mail - Inbox - IBM Lot... On the structure and ... Microsoft PowerPoint ... 16:21



## Video Abstracts

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- **Launched in February 2011**
- **Aim to increase the visibility of our authors and their work**
- **Enable authors to go beyond the constraints of print to present their work**
- **Enhance a user's understanding and appreciation of an article through novel presentation**
- **Completely free-to-view**
  - No additional charge for authors



## Challenges that remain

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- **Ease of access to funds for article charge**
  - Remains one of the top problem for authors wishing to publish their content open access ([SOAP](#) report in 2011)
  - Some institutions and funding bodies have clear guidelines and separate funds; many do not
- **Usage/Reuse/Copyright**
  - Use of Creative Commons licences and understanding what it means (different types of licence, difference between copyright and creative commons licence)
- **Open Access  $\neq$  Free or Considerably cheaper**
  - Same work required to meet set criteria whether it is OA or not. Open access discussions do not always differentiate between source content, archival content or additional content such as data.



## Open Access in the UK

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Many different aspects of publishing reviewed in 2010/2011.

Government inquiries into:

- Peer review
- Copyright

And a working group set up to examine how UK-funded research findings can be made more accessible.



## Open Access and the UK

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**In April 2011 a report, *Heading for the open road: costs and benefits of transitions in scholarly communications*, was produced by Research Information Network ([www.rin.org](http://www.rin.org))**

The study was commissioned by:

- Research Information Network (RIN)
- JISC
- Research Libraries UK (RLUK)
- the Publishing Research Consortium (PRC)
- Wellcome Trust



## RIN report

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*“The aim of the study has been to provide evidence that will help the different constituencies involved in scholarly communication to understand better the dynamics of the transitions needed to improve access to research papers in a variety of ways; and the costs, benefits, opportunities and risks that this entails. Transition is understood to relate to changes in practice, business models and organisational culture within the relevant constituencies, and any new entrants, over the next five years”*



## Recommendation

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... the prudent stance for policy-makers seeking to promote access in the current environment is likely to be as follows:

*- to encourage the use of existing Green infrastructure (whose costs are largely sunk); but to be cautious about pushing for reductions in embargo periods to the point where the sustainability of the underlying publishing model is put at risk.*



## Recommendation

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*- in parallel, to work to facilitate a transition to Gold OA in specific disciplines first provided that (i) the average level of APCs remain at or below £1,995;<sup>43</sup> (ii) the proportion of articles funded through APCs moves broadly in line with global rates; and (iii) mechanisms are in place to ensure that total payments from UK universities and their funders do not rise as a consequence of this transition.*



## Open Access and the UK

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**Recent announcements stating backing for open access**

### **Research Councils UK and HEFCE work together on Open Access**

*“Research Councils UK and HEFCE have a shared commitment to maintaining and improving the capacity of the UK research base ...Open access to published research supports this commitment ...To achieve this, open access needs to be implemented with clear licensing agreements, sustainable business models, and working with the grain of established research cultures and practices.”*



## Open Access and the UK – quotes from David Willetts, the Minister for Universities and Science

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*“Transparency is at the heart of the Government’s agenda, and this also applies to published research. In a recent discussion with members of the research community and publishers I stressed the importance of open access...”*

**RCUK press release May 2011**

*“We set out very clearly in the document today our commitment to open access. We want to move to open access, but in a way that ensures that peer review and publishing continues as a function. It needs to be paid for somehow. One of the clear options is to shift to a system from which university libraries pay for journals to one in which the academics pay to publish. But then you need to shift the funding so that the academics could afford to pay to publish.”*

**The Guardian, December 2011**



## But how will this be supported?

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- **Working group consisting of Publishers, Scholars, Funders, Librarians set up to discuss the implications for the UK**
  - First meeting in September 2011
  - Reviewing different solutions, e.g. national licences
  - Due to report Spring 2012
- **Research councils state charges can be part of grant application (in some cases) or part of the indirect costs in the full cost economic regime**



## Summary

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- **We have been open to different business models to the subscription model for more than 13 years**
- **Open access options are now available on 33 titles published by IOP**
  - 7 gold open-access titles (includes partner titles)
  - 26 'hybrid' subscription titles (includes partner titles)
- **We want authors to be able to publish in their journal of choice regardless of business model**
- **Gold open access can be a sustainable complement or alternative to subscription publishing**
  - We will work with funding bodies and research institutes which seek to disseminate their research in this way



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**Thank you for your attention.**

**[nicola.gulley@iop.org](mailto:nicola.gulley@iop.org)**