

IAS Bulletin



New Postdoctoral Research Fellows arrive at IAS:
 Sara Trevisan, Katrin Wehling-Giorgi, Richard Aldrich
 (IAS Director), Paulina Sydor, Laura Schwartz

What does The Institute of Advanced Study do?

Richard Aldrich

Autumn 2011

The Warwick Institute of Advanced Study (IAS) was established in 2007. Its mission is to enrich the University's research environment and forms an integral part of the University Strategy Vision 2015.

The IAS has four main tasks. First, it enhances opportunities for international engagement with Warwick, typically by bringing in distinguished visiting fellows and emphasising links with the University's strategic partners overseas. Second, it promotes research and interdisciplinary collaborations across all Warwick faculties, often through pump-priming for projects that bring people together. It seeks to enrich the research environment for postgraduate students and early career scholars by offering fellowships and training. Finally, it seeks to develop the University's impact agenda, and to increase public engagement with Warwick research nationally and internationally.

The IAS seeks to attract the very best scholars to Warwick and to facilitate new opportunities for Warwick researchers. To do this it supports a cluster of funding initiatives and programmes which are summarised usefully in this bulletin together with deadlines. New activities are being launched all the time and we hope you will check the IAS website regularly for details.

go.warwick.ac.uk/ias

A Symposium on Time

Yuxin Yang, IAS Early Career Fellow

Time is a subject that is at once captivating and elusive. Given its omnipresent nature, it is no surprise that time shows up in one key area of my doctoral research on infinite dimensional spaces. At first glance, the abstract and theoretical nature of my research tends to make it difficult to link with other disciplines. However, the realisation that there is a common theme of time pervasive in every discipline motivated me to organise an interdisciplinary event designed to reflect this fact and to explore our understanding of time from different perspectives. Time is an ideal topic to bring together scholars from diverse research areas and a symposium was developed with help from the IAS and the Mathematics Institute.

I invited experts across the widest possible range of fields. This included physics, philosophy, psychology, behavioural science and performing arts. The response across the campus was excellent. Within two weeks more than eighty people had registered – and even more showed up on the day of the symposium. Some of our visitors were distinguished scholars from other universities, other were interested members of the public for whom the question of Time clearly resonated. We also received a fabulous range of contributions, including short stories and essays, poems, a geological interactome diagram, and many artworks from the University's art collection.

On 24th August 2011, our Symposium on Time began with a presentation from Professor Robin Ball, Head of Physics at Warwick. Physics undergraduates are taught that time is defined such that the laws of physics look locally simple. What underpins the repetitious systems of clocks, Robin noted, is the notion of autonomous dynamics, such as the rotation of the earth around the sun. Physics fundamentally views length and time as related aspects of one combined notion of spacetime, rather than two completely separated axes. As the principle of special relativity states that there is no preferred inertial reference frame, there is no absolute notion of simultaneity. The apparent irreversibility of time flow stems from our viewing the initial conditions of the universe as special, but not from any intrinsic law of physics. Professor Peter Coveney, Professor of Physical Chemistry of UCL, took us further into the inherent conflict between reversible and irreversible time.

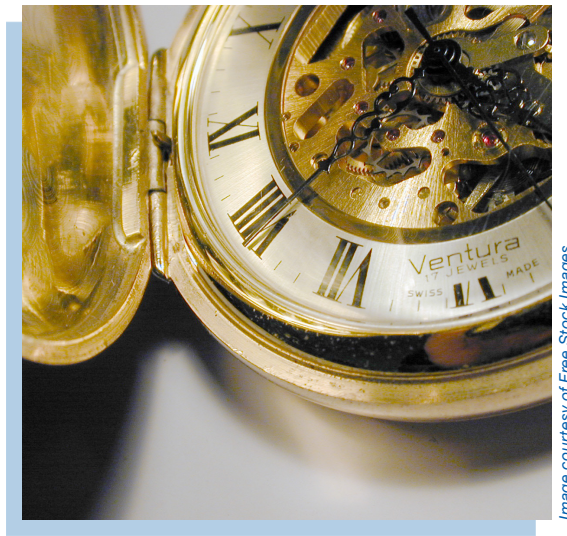


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The debate heated up quickly. One physicist put forward a radical alternative to the above views and, in fact, to many of the standard textbook ideas of relativity, with a telling subtitle “Was Spacetime a Glorious Historical Accident?” Julian Barbour, a world-renowned expert on the subject of Time, or rather, the non-existence of Time, questioned whether one should formulate the laws of nature as the local laws of nature. Instead, it is the Hamiltonian of the entire universe that we should think about, he argued. Inspired by Paul Dirac's doubt in four-dimensional symmetry as a fundamental property of the physical world, Julian advocates the famous Mach's principle, the very idea that inspired Einstein's general theory of relativity - although Einstein failed to fulfil it completely. Julian reasoned that time should not be fused with space: it emerges from the timeless shape dynamics of space. Ratio is everything that is meaningful in physics, and the size of universe is far less fundamental than its shape. An instant of time is one configuration of the entire universe at one instant, he claimed, and absolute simultaneity should be restored.

The baton was then taken up by a Warwick philosopher, Christoph Hoerl. He demonstrated how Naïve Realism of time perception could account for temporal illusions, again raising the question whether time exists in the way we may unwittingly assume. Teresa McCormack, Professor of Psychology from Queen's University Belfast, gave an engaging presentation of many interesting experiments that investigate how children comprehend duration and sequence and represent time. Professor Daniel Read from the Warwick Business School, an expert in behavioural science, also experimented with the audience to illustrate the economics and psychology of time: £100 now or £110 next year?

Our programme took a turn into the artistic world when the cellist from Warwick's resident Coull Quartet, Nick Roberts, explored musicians' individual subjective response to time and how potential conflicts can be resolved in an ensemble. He illustrated, with music clips and with a beautiful live performance of Allemande Bach's Cello Suite No.1, how performers try to subvert time subtly in terms of a regular beat and the listeners' perception. Jonathan Heron, Artistic Director of Fail Better Productions, outlined some central questions concerning time on the theatrical stage and the temporality of rehearsal process, using his experience as a theatre director and his practice-based research in Performance Studies.

The symposium ended with a memorable presentation by Harvey Brown, Professor in Philosophy of Physics from Oxford, who provided both a dialectic view to the physicists' expositions on the subtleties of simultaneity and a natural synthesis of all the talks of the day. After analysing the difficulty of spreading time through space, he concluded that the relativity of simultaneity is essentially conventional.

In the same way that the perception of time is local and primitive for a child and becomes increasingly global and abstract for adults, human understanding of the physical and psychological meaning of time develops gradually. As the scientific and artistic approaches to time spring out of the same general consciousness and collective human wisdom, advances in both areas occur in parallel and complement each other. A symposium on time may finish after a day, but our quest for the true meaning of time might never end.

IAS Award Schemes and Deadlines at a glance

For full details go to http://www2.warwick.ac.uk/fac/cross_fac/ias/funding_opportunities/

VISITING FELLOWSHIPS - 20 February 2012

The primary aim of this scheme is to promote visits by highly distinguished researchers and intellectuals to Warwick. This includes policy makers, representatives of the arts, business, government and industry, artists and writers which will enrich the research landscape across the disciplines at Warwick and contribute to the University's international reputation as a centre of research excellence and innovation.

LEVERHULME TRUST VISITING FELLOWSHIPS - 21 November 2011

The Leverhulme Trust has invited the University of Warwick to participate in its Visiting Fellowship scheme for the forthcoming year. We have been asked to nominate two Visiting Fellows from across the University, who must be from overseas and must not have more than eight years of postdoctoral experience. Each Fellowship will be 9-12 months long, depending on the proposed programme of work. The IAS has been asked by the University to run an internal competition in order to select the two nominations to be put forward to Leverhulme. Each Department will be invited to submit one Fellowship nomination to this internal competition.

POSTDOCTORAL RESEARCH FELLOWSHIPS – Spring 2012

This high profile programme is designed to attract the best postdoctoral researchers to Warwick. The Postdoctoral fellowships last two years and are the flagship scheme for IAS featuring cutting-edge research and promoting interdisciplinarity. Fellows are encouraged to run research workshops or conferences and apply for externally-funded fellowships. Four fellows were appointed in the summer of 2011 and we are currently hoping to advertise further fellowships in the summer of 2012, perhaps in co-operation with overseas partners.

EARLY CAREER FELLOWSHIPS - 9 January 2012, 18 June 2012 and 7 January 2013

This programme supports Warwick doctoral candidates in the transition phase as they move towards postdoctoral careers. Fellows are expected to write research publications, conference papers, job applications, and postdoctoral fellowship/grant proposals - while engaging with the interdisciplinary activities of IAS. During their 6 months at IAS, Early Career Fellows are asked to run a symposium or workshop on campus. The Fellowships are available on a part-time basis and many are held in conjunction with part-time employment within or outside the University.

IMPACT AWARDS - Rolling deadline

The IAS Impact scheme promotes Warwick-based impact activities and is focused on the Research Excellence Framework (REF). The funding councils also highlight economic, social and cultural impact as a key research outcome for grant applications. Impact events may occur at Warwick, however we are especially keen to promote activities that engage with non-academic partners and which showcase Warwick research in London or other centres where there is ease of access for user-communities. Achieving Impact is challenging and IAS is happy to advise on engagement with the Third Sector, with think tanks and the world of Whitehall, Westminster and beyond. The ceiling for bids for under this category is £3,000

INCUBATION AWARDS - 21 May 2012

Incubation Awards are intended to provide initial funds for identifying and pump-priming new, Warwick-based collaborative research networks that are interdisciplinary or multidisciplinary in their methodology, agenda and personnel. Incubation Awards are designed to expedite scoping activities for collaborative research networks, not to sustain such networks beyond this start-up phase. Applications involve researchers from more than one department and are often deployed to bring researchers from other institutions, including international visitors, to the University to explore collaborative links with Warwick researchers. The ceiling for bids for under this category is £4,000.

EUROPEAN FRONTIERS - 14 November 2011

UK Research Council awards are becoming increasingly competitive as they grapple with declining budgets. By contrast, European funding is likely to remain stable and Framework 8 is expected to invest €80 million in research over six years. The European Frontiers Scheme is intended to speak directly to these opportunities and to support the development of bids to a wide range of European schemes, including but not limited to: Framework programmes, European Science Foundation grants, bilateral schemes between European and UK Research Councils, and network grants. This scheme is designed to facilitate meetings between Warwick researchers and potential European partners with a view to evolving new programmes of research and/or research networks, and developing funding applications. The ceiling for bids for under this category is £500 for individual visits and £2,500 for larger meetings.

EARLY CAREER RESEARCH VACATION SCHOOLS - 24 October 2011

This programme is designed to fund or co-fund research-orientated residential workshops at Warwick or Warwick's conference location in Venice. The events are geared toward early career (PhD and/or recent postdoctoral) researchers. Funded projects should be focused on specific research questions, methodologies and themes and normally extend over 5 days. The vacation school should range intellectually beyond a single discipline or Warwick department. Successful proposals will allow Warwick-based PhD students and postdoctoral fellows as well as early career researchers drawn from a wider national or international pool to gain new understanding of emerging fields of scholarly analysis in dialogue with a team of more senior researchers. The ceiling for bids for under this category is £22,000 (based in Warwick) or £25,000 (based in Venice).

RESEARCH NETWORKS - Rolling deadline

The IAS and the Wolfson Research Exchange are working together to expand the range and variety of cross-campus research networks. IAS plays an important role in assisting with collaborative, interdisciplinary networks, not only financially through Incubation awards, but also with resources such as the IAS Seminar Room in Millburn House and the IAS website where cross-disciplinary networks can be housed on a neutral IAS website rather than on any one department's pages. Modest funding is available for one-day workshops and meetings for established networks. A call for new research networks will be launched at an event in the Wolfson Research exchange on 19 October 2011.

Summary of IAS awards and deadlines

Early Career Research Vacation Schools	24 October 2011
European Frontiers	14 November 2011
Leverhulme Trust Visiting Fellowships	21 November 2011
Early Career Fellowships	9 January 2012, 18 June 2012 and 7 January 2013
Visiting Fellowships	20 February 2012
Postdoctoral Research Fellowships	Spring 2012
Incubation Awards	21 May 2012
Research Networks	Rolling deadline
Speculative Lunches	Rolling deadline
Impact Awards	Rolling deadline

SPECULATIVE LUNCHES - Rolling deadline

Speculative lunches are intended to offer a forum for informal discussion, enabling Warwick staff to discuss research ideas at an early stage of formulation, with a view to potentially establishing research collaborations around particular themes. The IAS will host up to two of these 'blue skies' events each term around the table of the IAS seminar room in Millburn House. They are open to all members of staff, as well as postdoctoral fellows and postgraduate students, across all faculties, departments and research centres. Coordinators are free to structure discussion as they wish and to set their own agenda. They are often used as a forum to respond to the specific thematic calls issued by UK Research Councils.