Society for the Philosophy of Science in Practice

Mark your Calendars! SPSP's Fourth Biennial Conference at the University of Toronto is 26-29 June 2013

Editorial

Dear SPSP Community,

Following the 2011 conference in Exeter, some of us decided that a biannual newsletter would be a good way of maintaining and strengthening the SPSP community in-between our conferences. Many of us come from different backgrounds and work in different fields, and because those of us who work in the same field often find themselves hundreds if not thousands of miles apart, we felt there was a need to facilitate communication and help build relationships amongst SPSP members. Thus, this newsletter is intended to provide a network for all 'philosophy of science in practice' researchers; to provide a way to share experiences, expertise, news about conferences, and to provide insight into some of the different ways of 'doing' philosophy of science in practice...ah...in practice.

Each edition of the newsletter will have a few regular features. One of these, At the Philosopher's Desk intends to mimic James Lipton's Inside the Artists Studio. In this edition Leah McClimans and Sophia Efstathiou speak with Nancy Nersessian about her career in philosophy, her methodology and...her favorite curse word.

A second feature of this newsletter is our Philosophy-of-Science in Practice vs. Philosophy of Science-in-Practice segment. Here Laszlo Kosolosky highlights SPSP members' projects while attempting to

Newsletter Committee



Leah McClimans (Assistant Professor, University of South Carolina). Leah works on the methodology of quality of life measurement (sometimes to the detriment of her own quality of life!), medical ethics and is currently attempting some genuine social scientific research (and feeling like a bit of a poser in the process). She loves cats and hates being cold.



Sophia Efstathiou (Researcher, Norwegian University of Science and Technology). Sophia has spent the last 10 years trying to make sure that besides riding the serial intellectual highs of academia, she makes some difference in how practitioners understand their worlds. Developing an account of how some ordinary ideas can become extraordinary, scientific ones, Sophia studies race and aging science and now systems biology research. She loves sparkly things, especially when found on the ground. clarify John Dupré's underlying distinction. In this edition Kevin Elliott (University of South Carolina) shares this thoughts with us on this distinction, and how his work blurs the boundaries between these categories.

In 'Graduate Students Speak Out!' Jordan Bartol introduces SPSP members to the burgeoning projects of the younger generation, and examines what philosophy of science in practice means to the newest generation of SPSP researchers. We hope that this feature will connect established members of the SPSP with relatively new ones, as well as connect graduate students with one another.

Talk of the Town, our New Yorkeresque feature, lists conferences, workshops, meetings and talks that could be of interest to SPSP members (please email Leah McClimans at mccliman@mailbox.sc.edu for noteworthy submissions). Moreover we include Buck Field's discussion of the need for history and philosophy of science at a recent conference on the development of starship technologies.

Finally, beginning in the next issue we will include a 'Lonely Hearts' section, for researchers seeking researchers to share heartfelt projects! Here members can fulfill their every philosophical or scientific need by posting requests for collaborators, asking for expert advice, or soliciting help with paper. **Please email Leah McClimans at** <u>mccliman@mailbox.sc.edu</u> to initiate a summer posting.

We hope you enjoy the newsletter, and that it provides some useful resources and ways of networking in between SPSP conferences! If you have any comments, suggestions or ideas for submissions please email Leah.

Newsletter Committee Cont.



Liz Irvine (Post-doc at Centre for Integrative Neuroscience, Tubingen) Trying for a revolution in philosophy of mind and cognitive science by injecting it with some philosophy of science, but will settle for causing minor disturbances. Moving on from consciousness science, the next project is on decision-making, along with an exploration of different kinds of pluralism.



Buck Field. Independent researcher and consultant Buck Field works at the intersection of project management, history & philosophy of science, research, and policy. On a mission to contribute to future faster-than-light technology, he seeks to bring people and ideas together to change the world for future generations as profoundly as the past 500 years of science have done for us.

Laszlo Kosolosky (PhD Student, Centre for Logic and Philosophy of Science, Ghent University, Belgium). As a 'practical' philosopher of science, Laszlo fills his days investigating the ins and outs of consensus conferences, allowing myself to shed new light on social epistemological issues, such as expertise, (epistemic) responsibilities, consensus making, peer review, science policy and scientific integrity.



At The Philosopher's Desk with Nancy Nersessian

Nancy Nersessian is Regents' Professor and Professor of Cognitive Science at Georgia Institute of Technology. Her research focuses on creativity, innovation and conceptual change in science. Her commitment to the study of scientific practice is evident in her extensive list of publications and grants.

Dr. Nersessian's favorite poem is The Sentence by Anna Akhmatova, see http://www.favoritepoem.org/videos.html

1. How did you become interested in philosophy? What piqued your interest about innovation and cognitive science?

I loved math from the moment I encountered it. I developed a passion for physics as a child starting from when I heard about Einstein and the mysterious theory he developed. I think my teacher was talking about him because he had died. I wanted to be able to really understand his theory, what it said about the nature of the universe, and I recall at some point becoming interested in how someone comes up with such a theory. That passion turned me into a math and science nerd, but in retrospect it was the beginnings of my life as a philosopher and cognitive scientist. I started college as a physics major, but the way it was taught made it boring. That someone so passionate about the subject could be turned off that way would later come to interest me in science education. We had the option of getting a BS or an AB, which required humanities courses. Since I had taken a number of literature courses, I opted for the AB, but dreaded the prospects of taking the required philosophy course – I thought (a priori) of philosophy as navel gazing nonsense. But since I was going to have to suffer through it, I opted for the 3-credit course with a professor rather than the 2-credit with a grad student. That was



the best decision I ever made, since the Professor turned out to be Miliĉ Ĉapek. He taught the intro to philosophy as a course on the philosophy of space and time (his passion). The rest of the class members were dismayed; I found nirvana. The burning questions I had about relativity theory were addressed seriously. rather than being dismissed. I then opted for a double major in physics and philosophy and decided to go to grad school in philosophy. The philosophy department at Case Western had a new PhD program funded by the Rockefeller Foundation with emphasis on training science and math majors as philosophers. I went specifically to work with Howard Stein, and continued my work on general relativity with Leslie Foldy in the physics department.

Briefly, for the rest, studying the work of scientists made me interested in the *processes* of science rather than the *products*, which traditional philosophy of science tended to focus on. I believed early in my thinking that justification, theory-choice, conceptual change (then, product-focused) were entwined with issues of creativity and discovery (processfocused). How did scientists construct theories? At Case we studied in depth the works of the positivists, but they weren't addressing my problems. On the side, I read Feyerband and Kuhn and felt their methods of drawing on historical episodes and psychology, if not their theories, were going in the right direction. Quine's argument for naturalism gave me justification for informing my philosophical analyses with empirical research: my own and other's on the historical records of scientific discoveries and research in the emerging field of cognitive science.

2. Your carreer spans impressive work from more standard philosophy of science areas such as scientific concept formation to ethnographic observations of biology and engineering labs. Do you see a common thread (or more) joining your lines of work so far?

I see them as interconnected. I've just been following wherever my intellectual problems have led me, even though that has meant transgressing disciplinary boundaries to find the resources and methods for addressing them. For me, being a philosopher of science enables that kind of intellectual freedom. The main thread through much of my work is what I call "model based reasoning." My thinking in this direction started when I first encountered unanticipated things in historical records, specifically the numerous sketches in Faraday's Diary, the analogical models in Maxwell's papers and his various discussions of analogy, and their and Einstein's use of thought experiments. I was working from the position that the concepts of science are inventions or constructions, so the problem was: how are they constructed? This was the 1970's and there was virtually no literature on visual representations, analogies, and thought experiments in science. Yet I was convinced that these were more than "ancillary" or "mere aids" to scientific reasoning, and good candidates for an answer to my problem. The main works on these topics by Black, Hesse, and Achinstein gave me a start and I also discovered my contemporary David Gooding's work on Faraday. The biosciences and engineering research labs project has enabled examining the practices of physical simulation modeling and computational modeling, and thus the opportunity to develop a broader understanding of the epistemic work of modeling, including concept formation.

I have always been working in the philosophy of science in practice. The editor's statement for the *Science and Philosophy* book series that I founded in 1984 states that contributions "must be firmly rooted in an examination of actual scientific practice." I Newsletter Committee Cont.

Jordan Bartol (PhD Student, Centre for History and Philosophy of Science, University of Leeds). Jordon spends his time thinking about explanations in molecular biology and neuro-cognitive investigations concerning decisionmaking. He looks forward to the day when these two fields come together, but suspects he'll be waiting for some time.

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wish there had been a critical mass of likeminded philosophers then, but I was delighted when a terrific group of energetic young philosophers banded together in 2005-6 to found SPSP.

3. Your methodology includes qualitative research, conceptual analysis and historical research. Could you tell us a little about how you aquired your research skills? Would you have advice for scholars looking to make the kinds of interdisciplinary crossings and collaborations that you have successfully made?

My advice would be to study just as intensively whatever aspects of the other discipline(s) are relevant for your research as you did the methods and theories of philosophy. Learning to be proficient in each of these methods has taken me around 6 years. The methods of physics and of philosophy I learned in formal education. The rest I learned post-PhD – basically by informally apprenticing myself to colleagues and also learning from students. I learned historical analysis first by seeking the guidance of the historian Martin Klein. I had already been doing historical research when I got the position at Princeton but I continued to learn from my colleagues largely by participating in their seminars and inviting them to mine, and also from the students in these. My ethnographic research has been conducted in collaboration with colleagues from whom I have learned ethnographic methods and qualitative analysis, Wendy Newsletter and Lisa Osbeck. There's a lot of talk these days about the need for university education to create "life long learners." I think philosophy provides excellent preparation for this.

4. What do you think are the major stumbling blocks for a philosophy of science in practice, and what are your motivators for jumping over these blocks?

Studying science in practice is very time consuming, whether you're examining archival materials or "science-in-action." There is challenging material to work through and make sense of, and at least a conceptual understanding of the science – content and methods – is needed. Progress can be painfully slow. Finding venues for publication of this kind of research can also be difficult, though it's somewhat easier today. Another stumbling block is noted in your question 6. My prime motivator is that the problems/questions I'm addressing are intrinsically interesting to me, even though they give me a headache to think about at times.

5. What key contributions would you say that philosophy of science in practice stands to make to science and technology studies, including the history, sociology and anthropology of science?

One of the motivations for starting the research on the labs is that research on laboratory practices has tended to focus on the social and cultural aspects and discount the cognitive. But science is a richly cognitive practice with epistemic aims and goals. I think the sociocultural – cognitive divide is artificial. There is much these different approaches to practice can contribute to one another in moving towards an integrative understanding of science as a socialcognitive-cultural practice. I have always considered philosophy of science in practice to be part of science and technology studies.

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6. There is often a threshold within cultures of philosophy of science beyond which philosophers too involved in 'practice' are no longer considered 'philosophers'. How do you manage such tensions in professional acculturation and identity? Do you think gender complicates matters further?

Exercising intellectual freedom, unfortunately, often comes with a price. It took me 18 difficult years to get tenure, and I'm not in a philosophy department. Although I have had wonderful students in AI and in design cognition, I'm disappointed at not having been able to train any PhD students in philosophy here. For me, being a philosopher was about the ideas and I naively assumed for a long time it was that way for everyone. My teachers were all male; they all took me seriously and encouraged my intellectual aspirations. This fact made me totally unprepared for the what happened in the search for a job in my profession. For several years after graduation, my "area of expertise" was in philosophy of physics, where there are still few women today. I think both my intellectual work and my gender played a role in the too many to count times that I was told I had "come in second" (to a male) on a job search. I just continued to write and publish and present at professional meetings. Fellowships provided some income and continued professional affiliation, while seeking jobs. The gender part became harder to dismiss as I gained publications and reputation (e.g. invitations to present papers, my first election to the PSA Governing Board), but not a position in philosophy. Things have changed in philosophy of science - not as much as I would like, but there appears to be a critical mass of young and mid-career women (as evidenced by the new

women's caucuses of PSA and EPSA) and they seem to be doing reasonably well at securing positions in philosophy departments. I'm optimistic enough to think that if I were starting out today, the climate is such that both my intellectual work and my gender would not be such major stumbling blocks to a position in philosophy. Unfortunately the economic situation might impede this progress.

7. You currently hold an NSF grant to investigate computational modeling in systems biology laboratories. Would you tell us briefly about this project? Why do you think the NSF was interested in funding it?

Quantitative and computational methods are projected to play central roles in 21st century bioscience research – and already are in a cutting edge area, integrative systems biology. The participants in this area comprise bioscientists, computationalist, and engineers in various research practice configurations. Our research is focusing on two labs which together span a range of possible modes of research: one conducts computational modeling and method development and collaborates with bioscientsts who reside in their own university or industry labs, while the other conducts biological experiments, computational modeling, and engineering. As with my previous NSF-funded research on biomedical engineering research labs, this project is multi-faceted. This research provides opportunities to extend my investigations into scientific creativity to the nature of the intellectual work done by computational modeling, to conceptual innovation in a new field, and to another kind of interdisciplinarity. However, NSF would not provide the level of funding I've been receiving

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for just addressing my philosophical interests!

NSF's primary interests in funding this research are its implications for science education and its potential to forward thinking about how to facilitate research in this emerging trasdisciplinary community. My own disappointment as a physics student and my experiences as a teacher with students who are passionate about science when they enter the university and are quickly turned off piqued my interest problem of creating more effective approaches to science education. I took encouragement from the fact that my work on model-based reasoning and conceptual change was influencing science education researchers, mostly working on K-12 learning. I wanted to explore what could be done at the university level, and was struck by the fact the university research labs are largely populated by graduate students and more and more by undergrads and by the fact that along various measures, e.g. professional presentations and publications, graduation rates, jobs, they appear to be quite successful sites of learning. I leveraged the credibility I had built as a researcher with the STS program at NSF to propose, together with Wendy, a novel research project to NSF's education division. We proposed to examine research practices in emerging, interdisciplinary engineering science fields (where a defined set of courses was not entrenched, such as in physics), what is required to learn these, what are the factors of the ecology of the labs that support and sustain learning, and to determine and pilot ways of translating these into classroom and instructional lab experiences so as to promote the requisite learning. We call our approach a "translational model" of cognitive and learning sciences research. Our first grant for the biomedical engineering labs research, 10 years ago, was funded as "high risk" by the program

directors. We're on our third major grant, now on systems biology labs, and no longer considered so risky. women's caucuses of PSA and EPSA) and they seem to be doing reasonably well at securing positions in philosophy departments. I'm optimistic enough to think that if I were starting out today, the climate is such that both my intellectual work and my gender would not be such major stumbling blocks to a position in philosophy. Unfortunately the economic situation might impede this progress.

8. What aspect of your current work are you most excited about?

One aspect is that having significant funding from the NSF enables me to hire PhD students, postdocs, and research scientists and so I get to select the people I work most closely with. Although people leave and join, there's always a group of creative interdisciplinary people and we have great deal of fun thinking together.

The other is that I'm in a period where I can now mine the data we've collected over the last 10 years and several new book projects are beginning to take shape in my thinking. I can envision at least an exciting and challenging 3-5 years ahead working these through to completion.

The SPSP Proust Questionnaire Featuring: Nancy Nersessian

Who are your favorite heroines of fiction?

Natasia Ilyinichna, (War and Peace); Anna Karinina; the many women who inhabit the stories of Alice Munro.

What is your favorite opera?

That's a hard one. *Madame Butterfly* is the one that first introduced me to opera so I'll go with that even though I was disappointed to find I was not a soprano and could never perform "un bel di."

What is your favorite curse word?

None. I was raised a "proper Bostonian."

What is your favorite cuddle word?

I don't have one of those either.

What sound or noise do you hate?

Music sung or played off key. The most glorious sound is that of an Italian tenor holding a well rounded high C.

What is your favorite food?

Boringly, dark chocolate; specifically, Belgian, French, Danish. That's the real reason why I spend so much time in Europe.

What was the most critical academic feedback you ever received?

From my mentor, Howard Stein, when I started grad school: Don't just read what philosophers say about science, read the scientists themselves. As a physics student it had never occurred to me that it was possible to read the writings of the people who had created the theories in the textbooks.

Where do you write your best work?

In my office at home.

What is your favorite entertainment?

Opera and movies - now with the live HD broadcasts, I can combine both!

What profession would you like to attempt besides your own?

Needless to say, I would have loved to have been a major opera singer at venues such as the MET and LaScala. With years of studying and performing, I came close enough to professional level to know both how difficult the life is and that I would have enjoyed it greatly.

If heaven exists, what would you like to hear god say to you at the pearly gates?

"You tried to treat everyone fairly and with respect."



Philosophy-of-Science in Practice vs. Philosophy of Science-in-Practice

The Society for Philosophy of Science in Practice is interested in philosophy of science from a practical perspective. Following John Dupré's presentation at our conference in Exeter (June 22-24, 2011), the study of science in practice tends to make two assumptions, i.e. (1) philosophy of science should be connected to science, and (2) there is more to science than published texts, i.e. practice. Nonetheless, as John discussed there are at least two distinct ways to study science in practice: philosophy-of-science in practice and philosophy of science-in-practice.

Philosophy-of-Science in Practice entails philosophy that is directly engaged with scientific research through interaction with scientists about philosophical problems (e.g. background assumptions, logical structure, implications of unexpected findings, etc.) This kind of problem-solving is not something scientists *cannot* do, but something scientifically informed philosophers may be good at.

Philosophy of Science-in-Practice entails philosophy that is engaged with the people and communities producing science, i.e. their various goals, tools and social structures. These are not just incidental features of the production of science but essential to what it is and what its assertions mean.

While these definitions are helpful to elucidate the different ways in which we can study science in practice, they need not be conclusive. Indeed we hope they are a starting point for further reflection on our common interests. To this end in each newsletter we will present this distinction to a colleague in the field and ask how her/his research relates to it. Is the distinction straightforward or debatable? Are both conceptions (mutually) exclusive or not? Could the distinction be improved? If so, how? For this issue we asked <u>Kevin</u> <u>C. Elliott</u>, Associate Professor of Philosophy at the University of South Carolina, to share his thoughts with us:

I think that John Dupré's distinction between philosophy of science-in-practice and philosophy-of-science in practice is very helpful as long as we also recognize the prevalence of work that blurs the boundaries between these categories. I like to think of philosophy of science-in-practice as research that asks philosophical questions about the *doing* of science, not just the outputs of scientific activity. For example, these questions could involve the development and use of instrumentation, the design of experiments, or the creation of models. And for me, philosophy-of-science in practice involves using philosophical insights to address problems or challenges faced by scientists, citizens, policy makers, and others who make use of scientific information. While it's fruitful to recognize the differences between these two sorts of scholarship that fall under the umbrella of the SPSP, it's also worth considering how they intersect; after all, asking



P-o-S vs. S-i-P Cont.

questions about the doing of science can surely be helpful for addressing a range of social issues.

My own research falls in both of Dupré's categories, and I also think that it illustrates the connections between them. Much of my work that fits under the category of philosophy of science-in-practice has focused on the nature of exploratory experimentation and the ways it relates to hypothesis-driven experimentation. But this research can also contribute to philosophy-of-science in practice. For example, Maureen O'Malley, Dick Burian, Chris Haufe, and I have argued that by paying more attention to the ways that researchers integrate multiple approaches to experimentation, funding agencies can develop more reasonable guidelines for scientific grant proposals.

My work that falls under the category of philosophy-of-science in practice has focused on assisting policy makers in addressing controversial areas of research on topics like environmental pollution. But here again, my research merges with philosophy of science-inpractice. In specific case studies, I've tried to clarify the variety of ways that non-epistemic values influence scientific practice (e.g., in the design of studies, the development of scientific terminology, and the assessment of hypotheses). I think that this understanding can potentially help society in a variety of ways, such as by helping us to develop more thoughtful and strategic ways to address financial conflicts-of-interest in policy-relevant areas of science.

Graduate Students Speak Out!

At SPSP 2011 in Exeter, there was much excitement from graduate students about how the approaches, agendas, and methodologies of SPSP members differ from standard approaches in philosophy of science. To graduate students, the shift in focus represented by SPSP may be especially important. Though many senior academics view the SPSP approach as a shift away from a long-standing orthodoxy, graduate students beginning their research might view this as the a new normal. In this issue of 'Speak Out!' we look at two graduate student reflections on our summer conference.

Sara Green, a PhD researcher from AU in Denmark, felt encouraged by the changing landscape of philosophy of science. She notes, 'it seems that there is an increased interest for complexity, pluralism, etc., which means that the new philosophers of science are maybe, to her mind at least, less 'specialized'. This more general orientation may in fact better reflect 'the heterogeneity' of science. Rather than focusing on one set of philosophical problems from one perspective, philosophers of science in practice approach problems using knowledge and skills from a diverse background of sciences and philosophical approaches. In spite of this diversity, however, Green also views philosophy of science in practice as a somewhat methodologically homogenous field: 'By being interested in philosophy of science in practice you have already taken some decisions on the foundation of your work. In this sense ... fundamental disagreements are more rare.'

Even if the SPSP approach is move in the right direction, we might not be so quick to pat ourselves on the backs, warns Ian Falconer, a PhD researcher from the University of the West of Scotland. Though pleased with the increasing engagement between philosophy and science, Falconer notes that the aspects of science practice that get emphasized are not necessarily representative.

Almost every aspect being discussed and researched [at SPSP 2011] was at the bleeding edge of science ... My experience of being a scientist is not that world ... My experience of being an everyday scientist is one of falling in a ditch while trying to collect a water sample and having mud drip down my sleeve before I take my sample back to my cramped and underfunded process focused lab... The hematologist, the environmental health officer, the sewerage treatment tech, and the food scientist don't seem to figure in the Philosophy of Science in Practice. Only the star chefs are interviewed, never the kitchen staff.

In our quest to understand the practice of science, it is at times too easy to focus on unrepresentative samples. The scientific practices of Nobel Prize winning science may tell us little about the thoughts, intentions, and actions of the everyday scientist. Falconer's observations raise some important questions about the practices that get chosen for analysis. Is a focus on highly visible science justifiable? Falconer thinks not: 'At issue is that you aren't talking to the people who shape general opinion about science.'

It may be time for SPSPers to get some mud on their sleeves and talk to the line cooks.

Sara Green is a PhD student at the Aarhus University, Denmark. Armed with a background in biology, Sara is now working on philosophical implications of the study of complex systems.

Ian Falconer is a PhD student at the University of the West of Scotland, with the School of Creative and Cultural Industries. His research concerns the use of simple empirical models for public communication of science.

Talk of the Town

In early October Chicago Public Media's This American Life sent reporter Dan Grech to the 100 Year Starship Symposium (http://www.thisamericanlife.org/radioarchives/episode/448/adventure), SPSP's very own Buck Field was also there and reports on his experience in this issue of our newsletter.

What is a Starship Symposium? Good question. The aim of this conference is "to develop and mature technologies that would enable long-distance manned space flight a century from now". And when they say 'long-distance', they mean it. We're talking_the *stars*



Talk of the Town Cont.

Over the course of the three-day symposium, participants discussed ideas described by David Neyland, Director of DARPA's Tactical Technology Office as "both rigorously technical and profoundly thought provoking". We might also add sciencefictionesque, including topics like warp drives, wormholes and anti-gravity engines. But in addition to the enthusiasm there was also skepticism. Some of this skepticism was due to the risk inherent in long-term predictions associated with interstellar flight, but some was due to the lack of a shared vision for the future. With regard to the latter some attendees favored near-term launch of robotic missions that would last thousands of years to reach other stars. Other presenters unveiled plans for huge, independent space communities orbiting the sun or travelling through deep space without a particular destination. Some advocated research and development of more traditional chemical and nuclear propulsion technologies, with others endorsing basic physics advancement toward faster than light capabilities.

The biggest obstacle to interstellar space travel is the colossal distances between us and other star systems. Distance drives risks to crew safety, and exponentially increases the cost for things such as propellant, which is needed to overcome Earth's gravity, provide outbound acceleration and deceleration near the destination. Science fiction has often dealt with the problem of distance through various fantastical solutions. In the 1600's, Kepler 'solved' the problem of distance with "demons" helping humans reach the celestial realm. Modern space adventures feature plot elements such as Star Trek's warp drive. But if these solutions aren't realistic, how do we reach the stars?

The large distance among stars is problematic because even light speed is too slow to cover these distances. A beam of light takes more than 4 years to get to our closest interstellar neighbor and we lack the technology to keep a person alive in space that long—even when they are just a hundred miles above the ground. While current physics models do not allow for speeds faster than light, those models are known to have fatal flaws. Perhaps the most famous is that quantum mechanics for particles and relativity for space-time conflict with each other, and cannot describe extreme conditions like black holes. These models also fail to explain strange observations of expanding space and anomalous effects of gravity.

In response to widespread recognition of these problems, in 2007 a high level government assessment entitled 'Quantum Universe The Revolution in 21st Century Particle Physics' officially acknowledged the need for a "New Copernican Revolution" to understand the increasing number of anomalies and paradoxes which could have important implications for faster than light technologies.

A 'New' Copernican Revolution would probably need to replace the appearance of space-time with processes that give rise to perceptions of it. Such a reconceptualization would remove the space-time barriers to faster than light flight just as removing crystal spheres removed barriers to reaching other planets. If technology could be developed to go from point A to point B without crossing the intervening distance, most of the major problems addressed at the starship conference could be eliminated.

But not everyone thinks such a revolution is possible. For instance, a senior DARPA organizer recently compared current starship

Talk of the Town Cont.

planning to conversations we might have with Marconi about the technology embedded in the iPhone. His claim: "There's absolutely nothing that you could have done" because "we are too naïve to know what is going to be done in the next one hundred years."

Whether this claim is true or not, at the moment it seems as though a new revolution is what starship technologists and troubled physics communities need. Buck summed up the event as: "It was a fascinating gathering, collecting visionaries from lots of different perspectives. This symposium could very well be the event which future philosophers of science note our first uncertain step toward the next phase of civilization as a star faring species."

Call for Papers

Models and Simulations

Helsinki

14-16 June 2012

Deadline for Submissions: 5 February 2012

Keynote Speakers:

- Rosaria Conte (ISTC-CNR, Rome)
- Mary Morgan (LSE)
- Tim Benton (Leeds)

For more details please go to:

http://www.helsinki.fi/ms5/

23rd Midwest Artificial Intelligence and Cognitive Science Conference

Engineering Research Center, University of Cincinnati

21-22 April 2012

(Midwest Artificial Intelligence and Cognitive Science Cont.)

Deadline for Submission: 10 February 2012

For more details please go to: https://sites.google.com/site/maics2012/home

Center for Values in Medicine, Science and Technology

University of Texas at Dallas

Science-Policy Interactions and Social Values

13-14 April 2012

Keynote Speaker: Kevin Elliot

Deadline for submissions: 15 February

For more details please go to: <u>http://www.utdallas.edu/c4v/cfp-science-</u> policy-interactions-and-social-values-april-2012/

International Conference on the Philosophy and Science of Well-Being and Their Practical Importance

University of Twente

26-27 July 2012

Keynote Speakers:

- Bruno S. Frey (Professor of Economics, University of Zurich)
- Valerie Tiberius (Professor of Philosophy, University of Minnesota)
- J. D. Trout (Professor of Philosophy and Psychology, Loyola University Chicago)

Deadline for submissions: 15 February 2012

For more details please go to: http://philevents.org/event/show/920

Conference on Applied Statistics

Ballymascanion Castle

County Louth, Ireland

16-18 May 2012

Keynote Speakers:

- Deborah Ashby
- Roland Caulcutt
- Richard Boys

Deadline for Submissions: 2 March 2012

For more details please go to: http://www.scss.tcd.ie/conferences/CASI2012/

First European Network for the Philosophy of the Social Sciences Conference

University of Copenhagen 21-23 September 2012 Keynote Speakers:

- Peter Hedström (University of Oxford)
- Philip Pettit (Princeton University)
- Stephen Turner (University of South Florida)
- Björn Wittrock (Uppsala University)

Deadline for submissions: 15 March 2012

For more details please go to: <u>http://enposs.eu/</u>

European Meetings on Cybergenetics and Systems Research

University of Vienna

10-13 April 2012

For more details including deadlines for submissions please go to: http://www.emcsr.net/

Upcoming Conferences/Workshops

Perceiving Objects and Persons

Symposium

Bochum, Germany

29 February 2012 14-17.30

For more details please go to: http://investigacaofilosofica.blogspot.com/2012/01/fellowsymposium-2012-perceiving.html

International Conference on Information and Computer Applications

Hong Kong

17-18 February 2012

For more details please go to: <u>http://www.icica.org/</u>

Making Better Scientists: Philosophy of Science in Practice

Advancing Science Serving Society Annual Meeting AAAS Annual Meeting

20 February 2012

Keynote Speakers:

- Nancy Nersessian (Georgia Institute of Technology)
- Mieke Boon (University of Twente)

• Heather Douglas (University of Waterloo) For more details please go to: <u>http://aaas.confex.com/aaas/2012/webprogram</u> /Session4137.html

Graduate Conference for the Philosophy of Science

Erasmus University Rotterdam

8-9 March 2012

Keynote Speakers:

- James McAllister (Universiteit Leiden)
- Ingrid Robeyns (Erasmus Universiteit Rotterdam)
- Arianna Betti (Vrije Universiteit Amsterdam) TBC

For more details please go to: http://www.eur.nl/fw/english/eipe/conferences/gcps/

International Conference on Machine Learning and Computing

Hong Kong

10-12 March 2012

For more details please go to: http://www.icmlc.org/cfp.htm

Empirical Philosophy of Science—Qualitative Methods

Sandbjerg Estate, Denmark

21-23 March 2012

Keynote Speakers:

- Nancy Nersessian (Georgia Institute of Technology)
- Lisa Osbeck (University of West Georgia)
- Erika Mansnerus (London School of Economics)

• Hauke Riesch (Imperial College London) For more details please go to:

http://ivs.au.dk/forskning/projects/philosophyo fcontemporaryscienceinpractice/workshopsandco nferences/empirical-methods/

Evolutionary Algorithms in Stochastic and Dynamic Environments

Malaga, Spain

11-13 April 2012

For more details please go to: http://evostar.dei.uc.pt/2012/call-forcontributions/evoapplications/evostoc/

The Progress of Science

Tilburg University

25-27 April 2012

Keynote Speakers:

- Heather Douglas
- Paul Hoyningen-Huene
- Theo Kuipers
- Michael Weisberg

For more details please go to: http://www.tilburguniversity.edu/research/insti tutes-and-research-groups/tilps/Progress2012/

Democracy, Legality and Policy

Tilburg University

31 May-1 June 2012

Keynote Speakers:

- Helen Longino
- Alexander Somek
- Robert Talisse

For more details please go to:

http://www.tilburguniversity.edu/research/insti tutes-and-researchgroups/tilps/Democracy2012/ SPSP 2013 4th Biennial Conference 26-29 June Mark Your Calendars!



Talk of the Town Cont.

HOPOS 2012

9th Biennial Meeting

Hosted by Dalhousie University and The University of King's College

Halifax, Nova Scotia, Canada

21-24 June 2012

Keynote Speakers:

- Ian Hacking (University of Toronto)
- Penelope Maddy (University of California, Irvine)
- Heinrich von Staden (Institute for Advanced Study)

For more details please go to: http://hopos2012.philosophy.dal.ca/index.html