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Studies in Epistemology, Logic, Methodology,  
and Philosophy of Science

Vincent C. Müller *Editor*

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# Computing and Philosophy

Selected Papers from IACAP 2014

 Springer

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Volume 375

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Editor

# Computing and Philosophy

Selected Papers from IACAP 2014

 Springer

*Editor*

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# Editorial

## IACAP 2014

The conferences on ‘Computing and Philosophy’ (CAP) have a long tradition of 28 years, and they are now organised annually by the International Association for Computing and Philosophy (IACAP, <http://www.iacap.org/>), alternating between Europe and North America. The meeting took place in Thessaloniki, July 2–4, 2014, at the suggestion of the IACAP leadership, in particular of Mariarosaria Taddeo (president) and Marcello Guarini (executive director). The academic and organisational responsibility was given to this editor, who was supported by our team in Thessaloniki, especially Theo Gantinas.

Details of the meeting, including a programme, videos and slides of the invited papers, some photos and a list of participants, are available on the site of the conference, which will remain on <http://www.pt-ai.org/iacap>. There was general agreement that the conference ran smoothly and showed significantly higher academic level than in some previous years.

## Review Process

We sent out a call for papers saying, ‘Computing technologies both raise philosophical questions and shed light on traditional philosophical problems; it is this two-way relation that is the focus of IACAP meetings since 1986’. In total we had 78 submissions by the deadline – which was not extended. Of these 34 (43 %) were accepted for the main track and 5 for the ‘young researchers’ track. We also accepted 14 papers as poster presentations.

We are very grateful to the 42 members of our programme committee who did all the hard reviewing work, double blind. Together with the authors, they are to be thanked for the academic quality of the meeting:

Akman, Varol – Bilkent University

Beavers, Anthony – The University of Evansville

Bello, Paul – Office of Naval Research  
Berkeley, Istvan – The University of Louisiana at Lafayette  
Bishop, Mark – Goldsmiths, University of London  
Bottis, Maria – Ionian University  
Bryson, Joanna – University of Bath  
Chrisley, Ron – University of Sussex  
Coeckelbergh, Mark – University of Twente  
Danielson, Peter – University of British Columbia  
Dietrich, Eric – Binghamton University, State University NY  
Dodig Crnkovic, Gordana – Mälardalen University  
Ess, Charles – Aarhus University  
Franchi, Stefano – Texas A&M University  
Gomila, Antoni – UIB  
Guarini, Marcello – University of Windsor  
Hongladarom, Soraj – Chulalongkorn University  
Jones, Derek – University of Evansville  
Mcbride, Neil – De Montfort University  
Miłkowski, Marcin – Polish Academy of Sciences  
Piccinini, Gualtiero – University of Missouri-St. Louis  
Powers, Thomas – University of Delaware  
Preston, John – University of Reading  
Primiero, Giuseppe – Middlesex University  
Schiaffonati, Viola – Politecnico di Milano  
Schmidt, Colin – University Le Mans  
Shagrir, Oron – Hebrew University  
Shanahan, Murray – Imperial College London  
Simon, Judith – University of Vienna  
Søraker, Johnny – University of Twente  
Spence, Edward – Centre for Applied Philosophy and Public Ethics  
Sprevak, Mark – The University of Edinburgh  
Stahl, Bernd Carsten – De Montfort University  
Sullins, John – Sonoma State University  
Vallverdú, Jordi – Universitat Autònoma de Barcelona  
Vosgerau, Gottfried – Institut für Philosophie, Universität Düsseldorf  
Votsis, Ioannis – Institut für Philosophie, Universität Düsseldorf  
Waser, Mark – Books International  
Wheeler, Gregory – LMU, Munich  
Wiedermann, Jiri – Academy of Sciences  
Zambak, Aziz F. – Middle East Technical University, Ankara

Our invited speakers were Judith Simon (ITU Copenhagen), ‘The challenge of the computational: towards a socio-technical epistemology’; Hector Zenil (Karolinska Institute, Stockholm), ‘Information and Computation in Synthetic Biology’; Gregory Chaitin (HCTE/Federal University of Rio de Janeiro), ‘Conceptual Complexity and Algorithmic Information’; Selmer Bringsjord (Rensselaer Polytechnic Institute, Troy, NY), Covey Award Winner 2014, ‘Two Refutations of Hegemonic Bayesianism’; and Gualterio Piccinini (University of Missouri-St. Louis), Simon Award Winner 2014, ‘Computation and the Metaphysics of Mind’.

Apart from papers, we also called for symposia and accepted five to be run at IACAP – the organisers of these symposia were responsible for the presentations there, and the symposium papers are not published here in the proceedings. We are very grateful that some high-level symposia were run, namely:

- “Anti-reductionist computational metaphors in evolution, metamathematics and the contemporary human self-image” (organiser: Gordana Dodig-Crnkovic)
- “Robotics: From Science Fiction to Ethical and Legal Issues” (organisers: Sabine Thuermel, Fiorella Battaglia, Barbara Henry)
- “History and philosophy of computing” (organisers: Giuseppe Primiero and Liesbeth De Mol)
- “SuchThatCast” (organiser: Johnny Søraker)
- “Lightning Rounds” (organiser: Don Berkich)

After the conference, the authors of accepted papers were invited to submit full papers. We then ran a second round of online reviews between authors, non-blind this time, which resulted in fruitful and serious exchanges. In the light of these exchanges and comments from the editor, all full papers were revised, mostly several times, and significantly improved – or so we like to think. The revision process ended early November 2014, when each paper had been reviewed at least four times and checked by the editor. As a result of the reviews of the full papers, two submissions were withdrawn and three rejected, resulting in a total of 29 papers. The next review round was from an anonymous reviewer for Springer, who recommended further significant cuts, so after some negotiation we whittled this down to 18 papers, in the end (23 % of the 78 original submissions).

Of course, it is somewhat artificial to sort the conference papers into categories, but a few areas of research can be discerned that form the chapters of this volume: (1) philosophy of computing, (2) philosophy of computer science and discovery, (3) philosophy of cognition and intelligence and (4) computing and society. To this editor, it looks like IACAP is relocating itself, now that ‘computing’ has become a nearly transparent technology and I tend to think that the reflection on the philosophical basics of computing and computer science (Chaps. 1 and 2) can make a useful core for the meetings, while cognition and ‘intelligence’ are



quite separate concerns that call for different methods. This core can perhaps be supplemented by societal and ethical concerns (Chap. 4) – even though these tend to be oversubscribed already, with specialist conferences and associations. We tried to make IACAP a high-level specialist meeting in 2014 and offer you the fruits of this hard work. Where the association will go from here, the future will tell.

Struggle and learn!

Anatolia College/ACT, Pylaia-Thessaloniki, Greece

Vincent C. Müller

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