

Keynote Speaker I

Population Protocols

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Abstract

Wireless sensor networks are about to be part of everyday life. Mobility plays a central role in such systems and so does Passive Mobility, i.e. mobility of the network stemming from the environment itself. The Population protocol model was an intellectual invention aiming to describe such systems in a minimalistic and analysis-friendly way. In our talk, we describe recent advances in the population protocol model. These include the power added by memory enhancements in the devices, the role of fairness in pair-wise interactions in the population, and the ability or limitations of such systems wrt global computations.

Paul Spirakis, born in 1955, obtained his PhD from Harvard University, USA, in 1982 and has served as a postdoctoral researcher at Harvard University and as an assistant professor at New York University, (the Courant Institute). He was appointed as a Full Professor in the Department of Computer Science & Engineering of Patras University (Greece) in 1990. Paul Spirakis was honoured several times with international prizes and grants (e.g. NSF), also the top prize of the Greek Mathematics Society. Acknowledge between the top 50 scientists worldwide in Computer Science with respect “The Best Nurturers in Computer Science research”, published by B. Kumar and N.Y. Srikant, ACM Data Mining, 2005. He was appointed as a Distinguished Visiting Scientist of Max Planck Informatik. Paul Spirakis is the Director of the Research Academic Computer Technology Institute (RA.CTI). His research interests include Algorithms and Complexity and interaction of Complexity and Game Theory. Paul Spirakis has extensively published in most of the important Computer Science Journals and most of the significant refereed conferences. He has edited various conference proceedings and is currently an Editor of Several Prestigious Journals. Paul Spirakis has published two books through Cambridge University Press, and eight books in Greek. Paul Spirakis was the Greek National Representative in the Information Society Research Programmes (IST) from January 1999 till June 2002. He was elected unanimously as one of the two vice-Presidents of the Council of the European Association for Theoretical Computer Science (EATCS). He has been a member of ISTAG (Information Society Technologies Advisory Group) a prestigious body of about 40 individuals advising EU for research policy, from January 2003 to January 2005. Paul Spirakis is, since Fall 2008, a member of the ACM Europe task force, which is now ACM Europe Council. Also, he is a member of the ERC/IDEAS Panel of evaluations for Computer Science (2009-2010). He consults for the Greek State, the European Union and several major Greek Computing Industries.

Keynote Speaker II

Profiling Attitudes for Personalized Information Provision

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Abstract

PAROS is a generic system under design whose goal is to offer personalization, recommendation, and other adaptation services to information providing systems. In its heart lies a rich user model able to capture several diverse aspects of user behavior, interests, preferences, and other attitudes. The user model is instantiated with profiles of users, which constitute the metadata required on the users for such customized services to be available. They are obtained by analyzing and appropriately interpreting potentially arbitrary pieces of user-relevant information coming from diverse sources. These profiles are maintained by the system, updated incrementally as additional data on users becomes available, and used by a variety of information systems to adapt the functionality to the users' characteristics. This talk gives an overview of the field and discusses some of the key problems that need to be solved before such a system becomes a reality.

Yannis Ioannidis is currently a professor at the Department of Informatics and Telecommunications of the University of Athens. In early 2011 he also became the president and general director of the ATHENA Research and Innovation Center; in addition, since April 2011, he serves as the acting director of the Institute of Language and Speech Processing of ATHENA. He received his diploma in Electrical Engineering from the National Technical University of Athens in 1982, his MSc in Applied Mathematics from Harvard University in 1983, and his Ph.D. degree in Computer Science from the University of California-Berkeley in 1986. Immediately after that he joined the faculty of the Computer Sciences Department of the University of Wisconsin-Madison, where he became a professor before finally leaving in 1999. His research interests include database and information systems, personalization and social networks, data infrastructures and digital libraries & repositories, scientific systems and workflows, eHealth systems, and human-computer interaction, topics on which he has published over one hundred articles in leading journals and conferences. He also holds three patents. Yannis Ioannidis is an ACM and IEEE Fellow (2004 and 2010, respectively) and a recipient of the VLDB "10-Year Best Paper Award" (2003), the "Presidential Young Investigator Award" - PYI (1991), and of several awards for teaching excellence, including the nation-wide "Xanthopoulos-Pneumatikos Award for Outstanding Academic Teaching" in Greece (2006) and the "Chancellor's Award for Excellence in Teaching" at the University of Wisconsin (1996). He has also been a keynote or invited speaker in several conferences (NLDB'08, ICDE'07, ADBIS'06, CIKM'05, ICDT'03, WAIM'01, SSDBM'00, PDP'00 and ECDL'98).

Yannis Ioannidis has been a (co-)principal investigator in over thirty research projects funded by various government agencies (USA, Europe, Greece) or private industry. He is currently an associate editor of the Information Systems and Journal of Digital Libraries and has been a member of the program committees of over sixty conferences, six times as (co-)chair (ICDE'09, ADBIS'07, EDBT'06, HDMS'03, VLDB'02, VDB'98, and SSDBM'97). He currently serves as the ACM SIGMOD Chair (July 2009-June 2013), following a four-year term as vice-chair, and is or has been a member of several other executive bodies of professional organizations (VLDB Endowment, IEEE TCDE Executive Committee, EDBT Endowment) and Scientific Advisory Boards (Max Planck Institute for Informatics, Greek National Science & Technology Council, Information Technology advisor to the Greek Minister of Health).