Letter from the President

Dear EATCS members,

First of all, it is again my great pleasure to announce the assignments of the Goedel Prize and the new Presburger Award.

The Goedel Prize 2010 which is co-sponsored by EATCS and SIGACT, has been awarded to Sanjeev Arora and Joseph S.B. Mitchell for their concurrent discovery of a polynomial-time approximation scheme (PTAS) for the Euclidean Traveling Salesman Problem (ETSP). Especially, the prize is assigned to the papers Polynomial-time Approximation Schemes for Euclidean TSP and other Geometric Problems*by Sanjeev Arora, Journal of the ACM, 45(5), 753-782, 1998, and* Guillotine Subdivisions Approximate Polygonal Subdivisions: A simple polynomial-time approximation scheme for geometric TSP, k-MST, and related problems, *by Joseph S.B. Mitchell, SIAM J. Computing, 28(4), 1298-1309, 1999. The Euclidean Traveling Salesman Problem is one of those old, seemingly innocent problems known to be NP hard, but still not known to be in NP. As you can read in the laudatio, published in this issue of the bulletin, at the time of publication of both papers, the impact of the Euclidean assumption was hardly understood. Arora and Mitchell showed that solutions which are arbitrarily close to optimal in a relative sense can be found in polynomial time. These techniques, further simplified, improved and then generalized, occupy a chapter of their own in the theory of approximation algorithms. The discovery of a PTAS for ETSP, with its long trail of consequences,*

counts as a crowning achievement of geometric optimization. This year the Award Committee for the Goedel Prize consists of Cynthia Dwork, Johan Håstad, Jean-Pierre Jouannaud (chair), Mogens Nielsen, Mike Paterson, and Eli Upfal.

The Presburger Award 2010 for young scientists has been assigned to Mikolaj Bojanczyk for his numerous deep results on automata theory, logic, and algebra in computer science. The laudatio, also published in this issue of the bulletin, illustrates that he is one of the most impressive researchers in theoretical computer science of his generation and an ideal first recipient for the new Presburger Award. Besides several best paper awards on prestigious conferences, Mikolaj Bojanczyk has received the Ackermann award for his Ph.D. thesis by the European Association of Computer Science Logic, the Witold Lipski prize for young Polish researchers in computer science, and the Kuratowski award for young Polish mathematicians, awarded by the Polish Mathematical Society. The proposal has been made by the selection committee consisting of Stefano Leonardi, Andrzej Tarlecki, and Wolfgang Thomas (chair), and it has been unanimously approved by the EATCS Council members.

Both Awards will be presented together with the EATCS Award (that has been assigned to Kurt Mehlhorn as previously announced) in a ceremony that will take place during ICALP 2010 in Bordeaux. On behalf of EATCS, I would like to offer our sincere thanks to all members of the three Award Committees for their work and excellent choices.

The program of ICALP 2010 is now ready and

can be viewed in detail on the corresponding website http://icalp10.inria.fr/. It is again an excellent program, both for the high quality of the contributed papers and for the large number of scientific events, like the presentation of the Awards mentioned above and the invited talks that will be given this year by Pierre Fraigniaud on Informative Labeling Schemes, *Jean Goubault-Larrecq on* Noetherian Spaces in Verification, *Burkhard Monien on* Local Search: Simple, Successful, but Sometimes Sluggish, *Joel Ouaknine on* Towards a Theory of Time-Bounded Verification, *Roger Wattenhofer on* Physical Algorithms, *and by Emo Welzl on* When Conflicting Constraints Can be Resolved - the Lovasz Local Lemma and Satisfiability.

I am absolutely sure that the ICALP 2010 conference chaired by Pavlos Spirakis (track A), Samson Abramsky (track B) and Friedhelm Meyer auf der Heide (track C) will again be a great success. The conference will also host five satellite workshops: AlgoGT (Workshop on Algorithmic Game Theory: Dynamics and Convergence in Distributed Systems), DYNAS 2010 (International Workshop on DYnamic Networks, Algorithms and Security), ALGOSENSORS 2010 (International Workshop on Algorithmic Aspects of Wireless Sensor Networks), SDKB 2010 (Semantics in Data and Knowledge Bases), and TERA-NET (Towards Evolutive Routing Algorithms for scale-free/internet-like NETworks). The Conference Chairs Claude Kirchner and Cyril Gavoille, together with their team are doing an excellent job and we are looking forward to meet you in Bordeaux. So, hurry

up and register now for this extraordinary event!

The organization of ICALP 2011 is progressing well. In Bordeaux, you will have the opportunity to see the first Call for Papers with the indication of the program committees and the invited speakers. As I have already mentioned in a former letter, ICALP 2011 will be organized in Zurich next year by the ETH team Michael Hoffmann, Juraj Hromkovic, Ueli Maurer, Angelika Steger, Emo Welzl and Peter Widmayer. The conference will have the same tracks as this year. The program committees will be chaired by Jiri Sgall (track A), Luca Aceto (track B) and Monika Henzinger (track C). If you would like to know more about the next ICALPs, please attend the EATCS General Assembly which will take place on Wednesday evening during the ICALP week in Bordeaux.

Furthermore, I would like to mention that, from this issue on, the EATCS bulletin will be published fully electronically using the open journal system. *You get access to the electronic version via the EATCS website.*

Unfortunately, I have to end this letter again with a sad message. On March 20th, 2010, our friend and colleague Robin Milner passed away as a result of a heart attack. His wife, Lucy, died shortly before him. Robin Milner developed LCF, one of the first tools for automated theorem proving. The language he developed for LCF, ML, was the first language with polymorphic type inference and type-safe exception handling. In a very different area, Robin Milner also developed a theoretical framework for analyzing concurrent systems, the calculus of communicating systems (CCS), and its

successor, the pi-calculus. At the time of his death, he was working on bigraphs, a formalism for ubiquitous computing subsuming CCS and the pi-calculus. Robin Milner became a Fellow of the Royal Society in 1988 and received the ACM Turing Award in 1991. In 1994, he was inducted as a Fellow of the ACM. In 2004, the Royal Society of Edinburgh awarded Robin Milner with a Royal Medal for his bringing about public benefits on a global scale. *In 2008, he was elected a Foreign Associate of the National Academy of Engineering for* fundamental contributions to computer science, including the development of LCF, ML, CCS, and the pi-calculus. *You can find the obituary written by Gordon Plotkin and co-authored by Colin Stirling and Mads Tofte in this bulletin issue. On behalf of EATCS, I wish to express his family and all his colleagues the deepest mourning of our community.*

Burkhard Monien, Paderborn
June 2010