



Dear EATCS members,

I hope my letter finds you and your family safe and in good health. We are living in the times marked by the global coronavirus pandemic and this has a major impact on our lives and our scientific activities. Most of our research activities are still run remotely and online, and it seems that this will stay with us for the next months. However, with the improved pandemic situation and progress in global vaccination, we all hope to see a return to better times soon; already now, there are some conferences announced to be run in the hybrid mode, with some physical participation as early as this summer. While the current situation is a major challenge for our scientific community, on a bright side, our community has been developing many new and exciting initiatives: we see more online seminars and workshops, a lot of remote collaborative research, and for many of us free or low-cost online conferences provide a great opportunity for broader participation and the increase of visibility of our research through these events. And most importantly, we see some fantastic research done by our community; and so I take the opportunity to wish you all the best and much success for your work.

This will be the first issue of the Bulletin under the new leadership of Stefan Schmid (University of Vienna), who has recently replaced Kazuo Iwama as a new editor in chief. Kazuo Iwama has been the editor in chief of the Bulletin for almost



eight years, since the October 2013 issue. During Kazuo's energetic leadership our flagship publication has consistently been of excellent quality, supporting the theoretical computer science community in many ways. I have learned much from Kazuo, and let me use this opportunity to thank him for many fantastic years in running the Bulletin.

And as for the new leadership, I wish Stefan the best of luck with his new position. I trust that you will offer your assistance in Stefan's efforts to continue improving the quality and the impact of the flagship publication of the EATCS, in cooperation with the Council of the EATCS and following on Kazuo's footsteps.

As usual, the June issue of the Bulletin will be available just before ICALP, the flagship conference of the EATCS and an important meeting of the theoretical computer science community world-wide. The 48th International Colloquium on Automata, Languages, and Programming (ICALP 2021), will be held July 12-16, 2021 (URL: <http://easyconferences.eu/icalp2021/>). While we originally all hoped to meet at ICALP in Glasgow, Scotland, at the end the conference will be run online/virtually, as in the last year. Still, the conference chair Simon Gay, supported by his colleagues in Glasgow, promises us an exciting scientific event. I am very grateful to Simon Gay and his team (including Ornela Dardha, Gethin Norman, Oana Andrei, Michele Sevegnani, Jess Enright, Sofiat Olaosebikan, David Manlove, Kitty Meeks, Alice Miller) for the extraordinary work they have done in organizing ICALP 2021.



The Programme Committee chairs Nikhil Bansal (track A) and James Worrell (track B) and their PCs have done fantastic job selecting an impressive collection of papers, 108 accepted papers in track A and 29 in track B out of 463 submissions (362 for track A and 101 for track B). The acceptance rate was 29.6 percent. The programme of ICALP 2021 will highlight research across many areas within theoretical computer science. I invite you to watch the talks even outside your own research field.

The best paper awards at ICALP 2021 will go to the following two articles:

- Track A: Sayan Bhattacharya and Peter Kiss. *Deterministic Rounding of Dynamic Fractional Matchings*;
- Track B: Antoine Amarilli, Louis Jachiet and Charles Paperman. *Dynamic Membership for Regular Languages*.

The best student paper award for a paper that is solely authored by a student will go to the following paper from track A:

- Or Zamir. *Breaking the 2^n barrier for 5-coloring and 6-coloring*.

Congratulations to the authors of the award-receiving papers!

In addition to regular research talks, ICALP 2021 will feature six invited talks delivered by Christel Baier (Technical University of Dresden), Andrei Bulatov (Simon Fraser University), Keren Censor-Hillel (Technion), Toniann Pitassi (University of Toronto), Adi Shamir (Weizmann Institute of Science), and David Woodruff (Carnegie Mellon University).



Apart from the invited and contributed talks, ICALP 2021 will feature two special presentations:

- *of the EATCS Award 2021 to Toniann Pitassi (University of Toronto) and*
- *of the Presburger Award 2021 to Shayan Oveis Gharan (University Washington).*

Moreover, during the conference, we will honor the recipients of the 2020 EATCS Distinguished Dissertation Award and the new group of EATCS Fellows.

The recipients of the 2020 EATCS Distinguished Dissertation Award are

- *Talya Eden, Tel Aviv University (advisor: Dana Ron),*
- *Marie Fortin, Université Paris-Saclay (advisors: Paul Gastin and Benedikt Bollig),*
- *Vera Traub, University of Bonn (advisor: Jens Vygen).*

The new group of EATCS Fellows (class 2021) recognized for their scientific achievements in the field of Theoretical Computer Science consists of

- *Luca Aceto (Reykjavik University and Gran Sasso Science Institute),*
- *Rajeev Alur (University of Pennsylvania),*
- *Samir Khuller (Northwestern University),*
- *David Peleg (Weizmann Institute of Science),*



- *Davide Sangiorgi (University of Bologna), and*
- *Saket Saurabh (The Institute of Mathematical Sciences, Chennai).*

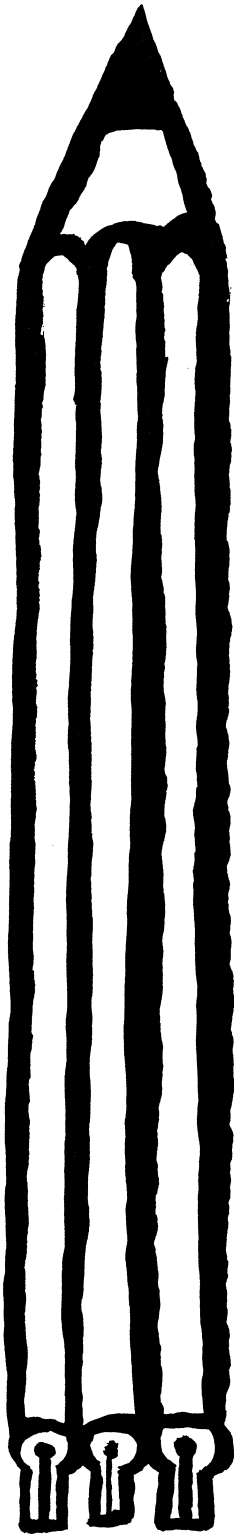
Congratulations to the award winners and new EATCS Fellows!

On behalf of the EATCS, I also heartily thank the members of the awards, dissertation and fellow committees for their work in the selection of this stellar set of award recipients and fellows. It will be a great honor to celebrate the work of these colleagues during ICALP 2021. (More details about the EATCS Award 2021, the Presburger Award 2021, the 2020 EATCS Distinguished Dissertation Award, and the EATCS Fellows are presented on the later pages of this issue of the Bulletin.)

Finally, let me also mention that ICALP has joined the SafeToC (<http://safetoc.org/>) initiative, aiming to help prevent and combat harassment in the Theory of Computing community. As the result, all ICALP 2021 participants will be required to agree to follow an appropriate SafeToC Code of Conduct. I believe this is a very important initiative that supports our scientific community and we all should endorse it.

ICALP 2021 will also have seven satellite workshops co-located with the main conference, taking place (online) on Sunday and Monday before the main event:

- *Algorithmic Aspects of Temporal Graphs IV,*
- *VEST: Verification of Session Types,*



- *2nd Workshop on Programming Research in Mainstream Languages (PRiML 2021)*,
- *Graph Width Parameters: from Structure to Algorithms (GWP 2021)*,
- *Combinatorial Reconfiguration*,
- *Formal Methods Education Online: Tips, Tricks & Tools*, and
- *Flavours of Uncertainty in Verification, Planning and Optimization (FUNCTION)*.

As usual, a more detailed report on the ICALP 2021 conference will be published in the October 2021 issue of the Bulletin.

Also, please allow me to remind you about three other EATCS affiliated conferences that will be taking place later this year.

- *MFCS 2021, the 46th International Symposium on Mathematical Foundations of Computer Science, will be held in Tallinn, Estonia, August 23-27, 2021 (<https://compose.ioc.ee/mfcs/>)*.
- *ESA 2021, the 29th Annual European Symposium on Algorithms, will be held in Lisbon, Portugal, September 6-8, 2021 (<http://algo2021.tecnico.ulisboa.pt/ESA2021/>)*.
- *DISC 2021, the 34th International Symposium on Distributed Computing, will be held in Freiburg, Germany, October 4-8, 2021 (<http://www.disc-conference.org/wp/disc2021/>)*.

We still do not know whether these conferences will take place online or as hybrid conference, or maybe even physically.



In the recent months we have seen announcements of numerous further awards given to the members of theoretical computer science. While more details about many of these awards can be found on the pages of this Bulletin, let me list the main highlights here.

The Gödel Prize for outstanding papers in the area of theoretical computer science is sponsored jointly by the EATCS and the ACM SIGACT. This year it has been awarded for the seminal work on the constraint satisfaction problem to the following three papers:

- Andrei Bulatov. *The Complexity of the Counting Constraint Satisfaction Problem*. *J. ACM* 60(5): 34:1-34:41, 2013.
- Martin E. Dyer and David Richerby. *An Effective Dichotomy for the Counting Constraint Satisfaction Problem*. *SIAM J. Computing* 42(3): 1245-1274, 2013.
- Jin-Yi Cai and Xi Chen. *Complexity of Counting CSP with Complex Weights*. *J. ACM* 64(3): 19:1-19:39, 2017.

The Edsger W. Dijkstra Prize in Distributed Computing is awarded for outstanding papers on the principles of distributed computing, and is sponsored jointly by the ACM Symposium on Principles of Distributed Computing (PODC) and the EATCS Symposium on Distributed Computing (DISC). The 2021 Dijkstra Prize has been awarded to the following seminal paper

- Paris C. Kanellakis and Scott A. Smolka. *CCS Expressions, Finite State Processes, and Three Problems of*



*Equivalence, Information and
Computation 86(1):43-68, May 1990.*

The Alonzo Church Award for outstanding contributions to logic and computation is awarded annually in a collaboration of the European Association for Theoretical Computer Science (EATCS), the ACM Special Interest Group on Logic (SIGLOG), the European Association for Computer Science Logic (EACSL), and the Kurt Gödel Society (KGS). The 2021 Alonzo Church Award has been awarded to Georg Gottlob, Christoph Koch, Reinhard Pichler, Klaus U. Schulz, and Luc Segoufin for fundamental work on logic-based web data extraction and querying tree-structured data, published in the following papers:

- *Georg Gottlob and Christoph Koch. Monadic Datalog and the Expressive Power of Languages for Web Information Extraction. J. ACM 51(1): 74-113, 2004,*
- *Georg Gottlob, Christoph Koch, and Klaus U. Schulz. Conjunctive Queries Over Trees. J. ACM 53(2): 238-272, 2006,*
- *Georg Gottlob, Christoph Koch, and Reinhard Pichler. Efficient Algorithms for Processing XPath Queries. ACM TODS 30(2): 444-491, 2005, and*
- *Georg Gottlob, Christoph Koch, Reinhard Pichler, and Luc Segoufin. The Complexity of XPath Query Evaluation and XML Typing. J. ACM 52(2): 284-335, 2005.*

EATCS also sponsors the Best ETAPS Paper Award 2021 for the best theory paper at



ETAPS, which this year was awarded to the following two papers:

- *Robin Piedeleu and Fabio Zanasi, A String Diagrammatic Axiomatisation of Finite-State Automata, and*
- *Bartek Klin, Sławomir Lasota, and Szymon Toruńczyk, Nondeterministic and co-Nondeterministic Implies Deterministic, for Data Languages.*

Finally, I am very happy to report that this year, the Norwegian Academy of Science and Letters awarded the Abel Prize for 2021 to two giants of the theoretical computer science community,

- *László Lovász (Alfréd Rényi Institute of Mathematics and Eötvös Loránd University in Budapest) and*
- *Avi Wigderson (Institute for Advanced Study, Princeton).*

The Abel Prize is one of the biggest and most prestigious prizes in mathematics, awarded annually by the King of Norway to one or more outstanding mathematicians, and is directly modeled after the Nobel Prizes. I am especially thrilled by the citation, which closely links the advances in mathematics with our field: “for their foundational contributions to theoretical computer science and discrete mathematics, and their leading role in shaping them into central fields of modern mathematics.”

As usual, let me close this letter by reminding you that you are always most welcome to send me your comments, criticisms and suggestions for improving the impact of the EATCS on the Theoretical



*Computer Science community at
president@eatcs.org. We will consider all
your suggestions and criticisms carefully.*

*I look forward to seeing many of you at
ICALP 2021 and to discussing ways of
improving the impact of the EATCS within
the theoretical computer science community
at the general assembly.*

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