

Report on MCU 2022:
9th International Conference on Machines, Computations, and Universality
Debrecen, Hungary, August 31 – September 2, 2022

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After NCMA and DCFS, the 9th MCU was the third conference in a row which took place in Debrecen, Hungary (August 31 to September 2). Also this conference was organized by György Vaszil and his colleagues from the Faculty of Informatics at the University of Debrecen.



Debrecen Big Forest Park

Besides the talks of the four invited speakers, the scientific program consisted of 10 talks presenting peer reviewed research papers. The four invited speakers were

- Hava Siegelmann (University of Massachusetts Amherst, USA) with a talk on ‘Super Turing computing enables lifelong learning AI’ on the first day,
- Mika Hirvensalo (University of Turku, Finland) who spoke about ‘Using inference to boost computing’ in the morning of the second day,
- Bianca Truthe (University of Gießen, Germany) who gave ‘A survey on computationally complete accepting and generating networks of evolutionary processors’ in the afternoon of the second day, and
- Enrico Formenti (University of Côte d’Azur, Sophia Antipolis, France) with a talk on ‘Complexity of local, global and universality properties in finite dynamical systems’ on the third day.

The accepted regular papers were written by 24 authors and have all been peer reviewed. The proceedings with all these papers were edited by Jérôme Durand-Lose and György Vaszil and published by Springer as volume 13419 in the series

Lecture Notes in Computer Science. Full versions of selected papers will be published in a special issue of the *International Journal of Foundations of Computer Science*.

On the workshop website, you can find the program with all talks:

<https://konferencia.unideb.hu/en/mcu-2022>

The Program Committee agreed on the following awards: The Best Paper Award went to Lucie Ciencialová, Ludek Cienciala, and Erzsébet Csuhanj-Varjú for their paper ‘Languages of Distributed Reaction Systems’. The Best Student Paper Award was given to Manon Blanc and Olivier Bournez for their paper ‘A characterization of polynomial time computable functions from the integers to the reals using discrete ordinary differential equations’.

The social meeting consisted of a visit at the Center for Modern and Contemporary Art (another exhibition than the one we had visited during DCFS) and a great conference dinner again.

On the last day of the conference, Jérôme Durand-Lose announced the new composition of the Steering Committee, after some members had expressed their wish to step down and future members were invited to join. The new Steering Committee consists of Erzsébet Csuhanj-Varjú, Jérôme Durand-Lose (Chair), Rudolf Freund, Daniela Genova, Maurice Margenstern, Benedek Nagy, Alberto Ottavio Leporati, Shinnosuke Seki, Bianca Truthe, György Vaszil, and Sergey Verlan.



Participants at the conference venue

We thank all participants, program committee members, external reviewers, and especially the organizers for the successful conference. The next issue of MCU is planned to be held in two years in Nice (France).