Message from the MICRO 2021 General Chair

It is my honor and pleasure to welcome you all to the 54th edition of the IEEE/ACM International Symposium on Microarchitecture 2021 (MICRO-54) broadcast from the city of Athens as a Global Online Event. During the past few months the organizing and steering committees of MICRO, along with the technical sponsors ACM and IEEE, carefully and responsibly considered the state of the pandemic and the uncertainties around the globe. The committees jointly decided to offer the opportunity to attend and enjoy MICRO-54 to all members of our research community and not only those that can safely travel. The global online format certainly misses many beautiful aspects of in person events, but brings together much larger numbers of attendees from any part of the world.

I am grateful to all colleagues of the MICRO Steering Committee and particularly to its chairman Scott Mahlke for the excellent personal and professional communication, the ACM Special Interest Group on Microarchitecture (SIGMICRO), the IEEE Computer Society Technical Committee on Microprogramming & Microarchitecture (TCuARCH) and the corporate sponsors (full list on the web site and the proceedings) for supporting the organization of this online edition of MICRO.

MICRO is the premier forum for presenting, discussing, and debating innovative microarchitecture ideas and techniques for advanced computing and communication systems. MICRO brings together researchers in fields related to microarchitecture, compilers, chips, and systems for technical exchange on traditional microarchitecture topics and emerging research areas. The MICRO community has enjoyed a close interaction between academic researchers and industrial designers, and the tradition continues in the MICRO-54 program.

The MICRO week this year is October 18 – 22, 2021, with the main symposium program starting on Tuesday October 19 and continuing to Thursday October 21, while workshops and tutorials take place on Monday October 18 and Friday October 22. Three inspiring keynote talks and 94 regular papers (record number of regular papers ever presented at MICRO) will keep our researchers busy during the week listening to the latest advances in the field, and workshop and tutorial units organized by leaders in the corresponding topics will educate us before and after the symposium.

We have decided to keep a dense program format following last year's recipe, but have reduced the parallel tracks from three to two while also adding a few short breaks. This format will make it possible for attendees to join more live sessions while it will enable speakers to address a larger live audience during their talks. Regardless of the time zone, participants will only need to devote a short period of the day to attend all symposium sessions or informally socialize using the virtual platforms. The agenda of all days of the technical program has the same structure and practically the same total duration (six hours). Of course, the offline material (pre-recorded full paper presentations videos, short lightning talk videos, proceedings, and live sessions recordings) will be available for watching at any time before, during, and after the symposium.

The beauty of the MICRO-54 technical program is the result of the amazing work of my good friends and colleagues Aamer Jaleel and Jishen Zhao, MICRO-54 Program Co-Chairs, who have tirelessly led and synchronized the efforts of their Program and External Review Committees. The students, researchers and practitioners of our research community have submitted a very large number of top quality papers and we want to thank them all for delivering their best work to MICRO. A record number of 94 papers appear in the proceedings of MICRO-54. Please read the Program Chairs message for all details of the selection process and the symposium program. Jishen and Aamer, thank you for sharing beautiful personal and professional moments with me throughout the year. Thank you for building a remarkable technical program.

MICRO-54 also attracted a large number of workshop and tutorial proposals, out of which our workshop and tutorial Co-Chairs Dionisios Pnevmatikatos and Lisa Wu Wills made an outstanding program that completes the technical week; we appreciate the time and effort that the organizers of all workshop and tutorial units have put to educate us. My warm thanks to Lisa and Dionisis for devoting time and energy for several months.

MICRO-54 hosts once again the ACM Student Research Competition (SRC) for which a large number of proposals from graduate and undergraduate students were submitted. The selection process for the SRC was led again by Yasuko Eckert and Osman Unsal, the SRC Co-Chairs and their review committee who selected

the finalists that will compete in the live SRC session during the symposium. I warmly thank Osman and Yasuko for devoting time and energy for several months as well.

I am tremendously grateful to Saugata Ghose, the web chair of MICRO-54 who designed, built, and constantly updates a beautiful web site for the symposium. Saugata served in a dual role, being also the Global Activities Co-Chair with Stefano Di Carlo, both excellent colleagues and friends who prepared the seamless combination of the virtual platforms we use for MICRO-54 around our Whova main hub. Thank you Saugata and Stefano for getting us all connected and for being available at any moment.

MICRO-54 introduces Artifacts Evaluation to further increase the value of the research performed in the community. I want to warmly thank Samira Khan and Gennady Pekhimenko, our Artifacts Evaluation Co-Chairs, for proposing the initiative and for running the review process after the papers were selected. A huge contribution came from the finances team of MICRO-54 (who did the work again last year): Mihalis Maniatakos for registration, Georgios Karakonstantis for budget, Christina Delimitrou, Yanos Sazeides, and Koji Inoue for fundraising; thank you all very much. In this context, I also want to thank Emre Ozer and Sreenivas Subramoney for joining the organizing committee as industry liaisons.

A very demanding task in the organization of the symposium is the production of the proceedings this time prepared by the ACM. Our Publications Co-Chairs George Papadimitriou and Mengjia Yan devoted a lot of time diligently making sure that all pieces of the proceedings arrive on time and in good order for the production. George and Mengjia, you did an amazing job. Publicity Co-Chairs Dimitrios Skarlatos and Boris Grot kept the community informed at all times about the state of the symposium, spreading around the word about deadlines and programs. Thank you both very much. My good colleagues in charge of Travel Grants Ashish Venkat and Omer Khan as well as the Local Arrangements Antonis Paschalis and Nikolaos Bellas, were assigned tasks that didn't materialize in the online format of the symposium; I thank them all for their availability.

Since the beginning of the pandemic all the top-tier events of the broader computer architecture community have been held virtually (MICRO, ISCA, HPCA, ASPLOS). I had the opportunity to communicate, receive guidance and provide feedback to most of the General Chairs of these virtual events as well as of past events that were held in person in good times. I am grateful to all for sharing thoughts, caring about the community, and for listening to my suggestions.

Hoping to be given the opportunity to welcome you all in Athens sometime soon.

Enjoy MICRO-54!

Dimitris Gizopoulos

General Chair, MICRO-54