## Chairs' Welcome

It is our pleasure to welcome you to FARM 2023, the 11th ACM SIGPLAN International Workshop on Functional Art, Music, Modelling, and Design! FARM gathers together people from across disciplines who are harnessing functional techniques in the pursuit of creativity and expression.

Functional Programming has emerged as a mainstream software development paradigm, and its artistic and creative use is booming. A growing number of software toolkits, frameworks and environments for art, music and design now employ functional programming languages and techniques. FARM is a forum for exploration and critical evaluation of these developments, for example to consider potential benefits of greater consistency, tersity, and closer mapping to a problem domain.

By gathering researchers, practitioners, artists, designers and anyone interested, FARM aims to develop this interdisciplinary field. Work in this challenging area has already led to new language designs, abstraction techniques, and execution models, as well as the use of old ideas in new, novel, and surprising ways.

The first FARM was held in Boston in 2013, and since then, FARMers have gathered in Gothenburg, Vancouver, Nara, Oxford, St Louis, Berlin and Ljubljana, in addition to two online-only meetings in 2020 and 2021. The 2023 edition of FARM will take place in Seattle, Washington, USA on September 8.

FARM 2023 solicited both full papers and demonstrations with associated extended abstracts. After thorough peer review with all submissions receiving 3 independent reviews, we accepted 4 full papers and 2 demonstrations. The final versions of these papers and demonstration abstracts can all be found in this volume. As befits our workshop, there is a considerable symmetry among the submissions with two papers each on the three topics of music, visualization, and needlework.

As in previous editions of FARM there will also be an evening of performances, this year at the brand new and state-of-the-art Raisbeck Auditorium at the Cornish College of the Arts, very close to the host hotel. The evening will begin with a keynote address by world-class concert pianist Gloria Cheng (UCLA), titled "Perfectly Imperfect: Music, Math and the Keyboard", and continue with a series of diverse performances combining music, visuals, interaction, and technology. We encourage you to attend what should be a very memorable evening.

Further information about FARM is available on our website, https://functional-art.org.

We would like to thank ACM and the organizers of ICFP 2023 for their support. Thanks also to the members of the FARM Program Committee, and to everyone who submitted papers, demos, and performance proposals. And, of course, we are grateful to all of the participants. We hope that you will enjoy the workshop as much as we know we will.

Welcome to the FARM!

**Mae Milano** Workshop Chair University of California at Berkeley **John Leo** Program Chair Halfaya Research **Kaley Eaton**Performance Chair
Cornish College of the Arts

Michael Sperber Publicity Chair Active Group GmbH

## **FARM 2023 Workshop Organization**

Workshop Chair: Mae Milano (University of California at Berkeley)

**Program Chair:** John Leo (Halfaya Research)

**Performance Chair:** Kaley Eaton (Cornish College of the Arts)

**Publicity Chair:** Michael Sperber (*Active Group GmbH*)

**Program Committee:** Youyou Cong (*Tokyo Institute of Technology*)

Visda Goudarzi (Columbia College Chicago)

John Hui (Columbia University) Oleg Kiselyov (Tohoku University) Yoshiki Ohshima (Croquet Corporation) Christopher Raphael (Indiana University)

Butch Rovan (*Brown University*)

Chung-chieh Shan (Indiana University)

Benjamin Sherman

Jeffrey Snyder (*Princeton University*) Andrew Sorensen (*MOSO Corporation*)

Dmitrij Szamozvancev (*University of Cambridge*) Daniel Winograd-Cort (*Luminous Computing*) Halley Young (*University of Pennsylvania*)