Editorial introduction

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Welcome to Volume 23 of *Genetic Programming and Evolvable Machines*.

2021 was a difficult year in many respects, but scientific research in the field of this journal continued to bear fruit. The COVID-19 pandemic had continuing impacts on our research community, both through direct effects on individual researchers and their families and through the disruption of travel and in-person meetings. Most scientific workshops and conferences operated either entirely or mostly remotely, and although the quality of remote meetings improved relative to 2020, there were still few opportunities for the kinds of informal and serendipitous interactions that so often led to new ideas and collaborations before the pandemic.

Nonetheless, 2021 produced exciting science in many areas including those covered by *Genetic Programming and Evolvable Machines*. Aside from the work published in this journal, some spectacular work was published in adjacent or overlapping communities, for example in software engineering with new methods for automatic program synthesis, and in biology with the construction of novel, self-replicating organisms that were designed by evolutionary algorithms in silico [1].

At this journal, we have continued to implement our pandemic-driven policy of flexibility, as described in the first issue of Volume 22. Authors and reviewers who need extra time should let us know.

In contrast to Volume 21, which was rich in special issues, Volume 22 included only a single special issue, on Highlights of Genetic Programming 2020 Events, edited by Miguel Nicolau, Ting Hu, Mengjie Zhang, and Nuno Lourenço. The rest of the volume was dedicated to regular issues, consisting of original research contributions along with resource reviews. Overall, the volume included 19 full articles presenting original research, one shorter research letter, three book reviews, and one software review.

In Volume 23 you can look forward not only to a steady stream of regular research contributions and resource reviews but also to special issues or sections on Trust, Trustworthiness, and Evolvable Systems (edited by Anikó Ekárt and Peter R.

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Lewis), Evolutionary Computation in Art, Music and Design (edited by Juan Jesús Romero Cardalda and Penousal Machado), and Highlights of Genetic Programming 2021 Events (edited by Leonardo Trujillo, Nuno Lourenço, Ting Hu, and Mengjie Zhang).

In the present issue we have five original research articles and two book reviews. The original research articles are: "Inference of time series components by online co-evolution" by Danil Koryakin, Sebastian Otte, and Martin V. Butz; "Constant optimization and feature standardization in multiobjective genetic programming" by Peter Rockett; "Genetic programming convergence" by W. B. Langdon; "Automatic generation of regular expressions for the Regex Golf challenge using a local search algorithm" by André de Almeida Farzat and Márcio de Oliveira Barros; and "Generating networks of genetic processors" by Marcelino Campos and José M. Sempere. The book reviews are Walid Magdy's review of Robert Elliott Smith's book, *Rage Inside the Machine—the prejudice of algorithms, and how to stop the internet making bigots of us all*, and Grace Buttler's review of Leanne Luce's book, *Artificial Intelligence for Fashion: How AI is Revolutionizing the Fashion Industry*.

This year we are also engaging in a process that will produce a particularly exciting project, marking the 30th anniversary of the publication of John Koza's groundbreaking 1992 book, *Genetic Programming—On the Programming of Computers by Means of Natural Selection*. Editors Leonardo Vanneschi and Leonardo Trujillo are planning "a special issue that focuses on the multiple impacts that the book had, and is still having, on the GP field," writing that they are "open to a broad range of submissions that, in various ways, help us better understand the impact of [Koza's 1992 book] on the GP community." The full call for papers for this special issue is on the journal's web site, and I hope that all readers of this journal, which owes so much to this book and the excitement that it generated, will consider making a contribution.

As usual, we also welcome you to submit your own original research on any topic within our scope. Please feel free to contact me with any suggestions or questions about the journal or your possible contributions.

References

1. S. Kriegman, D. Blackiston, M. Levin, J. Bongard, Kinematic self-replication in reconfigurable organisms. Proc. Natl. Acad. Sci. **118**(49) e2112672118 (2021)