

Editorial introduction

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Welcome to Volume 22 of Genetic Programming and Evolvable Machines.

2020 was an eventful and difficult year for us all, and the losses and challenges caused by the COVID-19 pandemic affected our research community just as it affected most communities. Conferences and workshops were held remotely, most for the first time and with little advance notice, as was the annual meeting of our journal's editorial board. Individual members of our community faced a variety of personal, family, and work challenges that were direct or indirect consequences of the pandemic, making it more difficult for them to review manuscripts and to contribute to the scientific publishing enterprise in other ways. From early in the pandemic, and still as of this writing, all communications from the journal to authors, reviewers, and editors have included the following notice:

Our flexible approach during the COVID-19 pandemic

If you need more time at any stage of the peer-review process, please do let us know. While our systems will continue to remind you of the original timelines, we aim to be as flexible as possible during the current pandemic.

Despite these challenging conditions, I am happy to report that Volume 21 of the journal was full and rich. It included a Twentieth Anniversary double special issue, edited by Nicholas Freitag-McPhee and William B. Langdon, which presented both exciting new research and insightful perspectives on the work in our growing field. It also included two other special issues, one of which was edited by Anna I. Esparcia-Alcázar and Leonardo Trujillo, focusing on Integrating Numerical Optimization Methods with Genetic Programming. The other was edited by Ting Hu, Miguel Nicolau, and Lukas Sekanina, and was the first instance of something that we hope to be a regular feature in the future: a special issue on Highlights of Genetic

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Programming Events. Volume 21 also included regular research articles, along with book and software reviews that were solicited and edited by William B. Langdon.

Volume 22 is also already shaping up nicely. In the present issue you will find four original research articles: "Benchmarking state-of-the-art symbolic regression algorithms," by Jan Žegklitz and Petr Pošík; "Stock selection heuristics for performing frequent intraday trading with genetic programming," by Alexander Loginov, Malcolm Heywood, and Garnett Wilson; "Choosing function sets with better generalisation performance for symbolic regression models," by Miguel Nicolau and Alexandros Agapitos; and "Fuzzy cognitive maps for decision-making in dynamic environments," by Tomas Nachazel. You will also find Nicolas E. Gold's review of Virginia Dignum's book, *Responsible Artificial Intelligence: How to Develop and Use AI in a Responsible Way*, and Stefano Nichele's review of Tim Taylor and Alan Dorin's book, *Rise of the Self-Replicators: Early Visions of Machines, AI and Robots That Can Reproduce and Evolve*. I hope that you will find all of these contributions to be informative and engaging.

In the remainder of Volume 22, along with regular research articles and resource reviews, we have several other special offerings in the works. These are likely to include expanded versions of selected papers from 2020 genetic programming events and from the 10th International Conference on Artificial Intelligence in Music, Sound, Art and Design (EvoMUSART-2021), along with a peer commentary special section that will feature a target article and responses to the target article written by editorial board members and their invitees. Stay tuned for details!

Please consider submitting your own research for publication in *Genetic Programming and Evolvable Machines*, and do not hesitate to contact me if you have questions about the journal or suggestions for special issues or other features that would help to advance our mission of serving the research community.

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