

Editorial: Many games, many authors

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The last issue of this roller-coaster year contains three scientific articles. The first one, *Polygames: Improved zero learning*, counts 24 authors, which is probably the highest number since the establishment of the journal. The article presents POLYGAMES, an open-source framework that combines Monte Carlo Tree Search and Deep Learning. The framework is generic enough for implementing many games, being size-invariant, and comes with a games library included. POLYGAMES won against strong players in the game of 19×19 Hex and 8×8 Havannah. Fewer authors has the second contribution, *Analyzing a variant of Clobber: The game of San Jego*, by Raphael Thiele and Ingo Althöfer. It introduces a new two-player perfect-information game, called San Jego. The authors establish an upper bound for the state-space complexity and approximate the game-tree complexity. For small board sizes, they calculate the optimal game-theoretic values and investigate the advantage of moving first. Games are fun but can also be used more seriously as the third contribution, *A polyomino puzzle for arithmetic practice*, by Jeremy Foxcroft and Daniel Ashlock, shows. The article proposes a family of puzzles that gamifies arithmetic skills. The puzzles are designed with an evolutionary algorithm forming an instance of automatic content generation.

It has been a while ago, but there is again a review by long-time contributor Dap Hartmann. This time he discusses *Man vs Machine: Challenging human supremacy at Chess*, by Karsten Müller and Jonathan Schaeffer. Finally, the long-awaited report on the 16th Advances in Computer Games conference (ACG2019) and the achievements of the computer chess engines participating in TCEC 19 and TCEC Cup 7 can be found in this issue.

It is also time to say goodbye. My two-year term as acting Editor-in-Chief has ended, and I will be succeeded by Tristan Cazenave. I would like to thank everybody who supported me the last two years.

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