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ALL IS PROOF NUMBERS

This issue of the Journal is touched by a scientific unbalance, since we publish two scientific articles of twenty-six and twenty pages, respectively. It absorbs all space for notes and reviews, and leaves only fourteen pages for the news section. However, the Editorial Board believes that the publication of both articles is a service to our community. The first article is an overview article on Proof Numbers and Proof Number Search, and the second one is a new algorithm with extensive background information concerning established research in the field of Combinatorial Games using Mean and Temperature.

Your editor considers the first article as a tribute to Victor Allis. Therefore, the title of the editorial may be read, too, as Allis' Proof Numbers. Admittedly, the editorial bears some personal feelings towards one of the most gifted Ph.D. students I have been privileged to supervise. Although he was a master student at the Vrije Universiteit Amsterdam, he arranged matters in such a way that I was allowed to act as his M.Sc. supervisor doing so from the Delft University of Technology. The topic was Connect-4. His approach was "I will prove by knowledge rules that the game is a win for the second player". He believed that it was so owing to the concept of Zugzwang. In 1988, he partially succeeded since he proved that it was a win for the first player. After this success, Victor somewhat later continued research as a Ph.D. student in Maastricht. During his investigations I made him familiar with the concept of Conspiracy Number Search (McAllester, 1985), that was communicated to our community by Jonathan Schaeffer (1989) at the ACC5 in Noordwijkerhout, the Netherlands.

This idea was adapted and transformed into αβ Conspiracy Number Search (Allis et al., 1991). During time Victor used Maarten van der Meulen and myself as his sounding wall. He was a true researcher. He was greedy to incorporate all our counter-poises in his procedure of developing the idea that conspiracy numbers should not be used to conspire but should be transferred into proving mechanisms. The success of this approach can be read in Allis et al. (1994).

As Editor I am grateful to Akihiro Kishimoto, Mark Winands, Martin Müller, and Jahn Saito for their effort to compose the current overview article, in which they had to make many additions suggested by the referees before it covered the full scientific progress made in the first twenty years. Thank you all for this service to the community.

Then I would like to thank Kuo-Yuan Kao, I-Chen Wu, Yi-Chang Shan, and Shi-Jim Yen for their article titled Selection Search for Mean and Temperature of Multi-Branch Combinatorial Games. As is well known, Mean and Temperature are the most important concepts for hot combinatorial games. Here, Elwyn Berlekamp has shown us since the 1970s which research directions to follow. He did so successfully together with John

Conway and Richard Guy. Your editor is sure that the readership will be happy with the points of recognition and details of precision given by the authors. Moreover, I am sure that all readers will appreciate the new finding of calculating the mean and temperature of multi-branch combinatorial games by a new algorithm. In summary, the article is a joy to read.

The created unbalance forces me to apologize to three classes of people. First, I apologize towards the outgoing members of the Editorial Board, Michael Buro, Ken Chen, and Hans Kuijf. Words of appreciation for their work over the years will now be given in a farewell contribution in the December issue of the Journal. Simultaneously, we then will welcome the three new members already announced in the previous editorial, namely Ingo Althöfer, Cameron Browne, and Guy Haworth. They are the second class of people who owe my apologies.

Then there was the choice to serve membership far away (i.e., the regions China and Taiwan) and to remain as up to date as possible. Therefore the Editors have decided to include news from the TCGA2012 and the 6th CCGC instead of the reports of the 16th Computer Olympiad. The latter reports will be published in the December issue, too.

Jaap van den Herik

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