

## Guy Haworth 1946 - 2021

Guy Haworth, who was one of the leading lights in the computer chess fraternity, died in June 2021. I was merely a user of his results, not a collaborator helping to produce them, but two incidents stand out.

The PGN file now available, containing all the reciprocal zugzwangs with not more than six men, was essentially his work (and the work of those who had produced the results in the first place). He had compiled a set of spreadsheets containing the data, and I merely extracted the data and did a reformatting job.

Of greater weight was his work with Eiko Bleicher testing all the positions with no more than six men in Harold van der Heijden's databases. When Timothy Whitworth and I were producing the second edition of *Endgame Magic*, we checked all the positions from the first edition in Harold's "Endgame study database V", and all too often "cook GH/EB" would give us bad news. Unwelcome information, but very valuable.

One of Guy's original contributions was to the finding of all "cyclic zugzwangs" (White to move can win, but only by manoeuvring back to the same position, or a rotation or reflection thereof, with Black to move) with not more than five men. He started this work some years ago with Árpád Ruzs, but the tool then available to them did not allow it to be completed. More recently, they and Galen Huntington took it up again, and a paper describing the results was essentially complete at the time of his death (the "work in progress" version which he had sent to me a few weeks previously could in my opinion have gone to press as it stood). For the record, there are 1135 such positions, three of them using only four men.

Those who worked with him will regard this as a very partial selection of his achievements. A good man, to whose work I at least owe more than a little.

JDB, June 2021.