

RECREATIONAL MATHEMATICS

Mathematics of Dots&Boxes

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Abstract

Dots&Boxes is a combinatorial paper-and-pencil game. It is one of those cases where playing well requires mastering some mathematical concepts; Euler's Formula and Sprague-Grundy Theory are particularly useful for Dots&Boxes strategy. The prominent mathematician Elwyn Berlekamp (1940-2019) demonstrated in his book *The Dots and Boxes Game: Sophisticated Child's Play* how this game is remarkable and can be played at several different levels. In this talk, the aim is to illustrate these ideas by exemplifying them with one or two games taken from the successful *Campeonato Nacional de Jogos Matemáticos*, which is now in its seventeenth edition.