

Bits and pieces of fractional graph theory

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Fractional graph theory deals with real-valued analogues of traditional (integral) graph parameters and concepts. Several methods of “fuzzification” are available; while often different methods lead to the same results, in a number of cases one can derive several alternative (and more or less legitimate) fractional analogues of the same integral concept by considering the definition of the latter in different lights. I will investigate through several case studies (domination, colouring, independence, and isomorphism) both the types of methods used and the range of results we can find.