On The Realizations of Weighted Directed Graphs as Graph-Directed Iterated Function Systems

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## ABSTRACT

The notion of graph-directed iterated function system is a generalization of classical iterated function systems opening vast new possibilities of generating fractals, which however are not fully exploited yet. Any graph-directed iterated function system has a natural associated weighted directed graph and we show that any weighted directed graph can be realized as the associated graph of such a system satisfying the open set condition. We also give several examples of a graph-directed iterated function system indicating the potentialities of this graph-directed approach.

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