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Erin PJ Pearse* (ep@ou.edu), Dept of Mathematics, Norman, OK 73019-0315. *Self-similar fractals as boundaries of networks*. Preliminary report.

Suppose F is a pcf self-similar fractal defined by an iterated function system. These contraction mappings can be used to construct a network N_F (connected weighted graph) which has F as a boundary (in a sense to be made precise). I will give the construction and discuss implications for the (reversible) random walk on N_F and the Laplacian on F . (Received January 17, 2011)