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Palle E.T. Jorgensen*, Palle Jorgensen, dept of Math MLH, University of Iowa, Iowa City, IA 52242. *Some fractals arising as metric completions of infinite weighted graphs.*

We study a class of fractals arising as metric completions of infinite weighted graphs. The weighted graphs in turn are defined by their vertex set V , their set of edges E , and a conductance function is prescribed on E ; conductance = $1/\text{resistance}$. From this we get a natural reproducing kernel Hilbert space, which in turn comes with a canonical Parseval-frame, and a resistance metric on V . The associated metric completions are the fractals under consideration; as well as their analysis. (Received January 12, 2015)