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Dorin Ervin Dutkay* (ddutkay@math.rutgers.edu), Department of Mathematics, Hill Center, Busch Campus, 110 Frelinghuysen Road, Piscataway, NJ 08854, and Palle E. T. Jorgensen, Department of Mathematics, 14 MacLean Hall, Iowa City, IA 52242. *Multiresolutions in non-linear dynamics*.

Scaling functions can be constructed for a general class of discrete dynamical systems, and for iterated function systems. They have interesting self-similar properties, and are closely related to transfer operators and harmonic analysis of fractal measures. (Received September 28, 2005)