

1072-81-80

Gerald V. Dunne* (dunne@phys.uconn.edu), Department of Physics, University of Connecticut, Storrs, CT 06269-3046. *Thermodynamics on Fractals*.

Quantum particles in thermal equilibrium probe the geometry in which they are confined. This idea can be used to address certain questions relating to fractals and a consistent thermodynamics may be defined based on the density of states extracted from the fractal zeta function or heat kernel trace. (Received June 20, 2011)