1154-46-205 **Michel L Lapidus*** (lapidus@math.ucr.edu), University of California, Riverside, Department of Mathematics, Riverside, CA 92521-0135. *An Introduction to Noncommutative Fractal Geometry.*

We provide an introduction to noncommutative fractal geometry, based on work of the presenter (Topological Methods in Nonliner Analysis, special issue dedicated to Jean Leray; Contemporary Math.), and, in the case of the Sierpinski gasket and other fractals (such as certain fractal trees), by E. Christensen, C. Antonescu and the presenter (Advances in Math.), as well as by J. Sarhad and the presenter. The latter work applies to a broader class of fractals, including the harmonic gasket, which is a primary example of a "fractal manifold". Special emphasis is placed on the recovery of the Hausdorff dimension, the Hausdorff measure and the geodesic metric of the underlying fractals. (Received August 23, 2019)