1167-46-249 **Michel L. Lapidus*** (lapidus@math.ucr.edu), University of California, Riverside, CA. *Problems in Operator Theory and Mathematical Physics.*

We discuss problems in operator theory and mathematical physics, ranging from Feynman integrals [1] to the conjectured moduli space of fractal membranes in [2], and to the invertibility of the spectral operator in [3,4] (motivated in part by [6]). References: [1] GW. Johnson, The Feynman Integral and Feynman's Operational Calculus, Oxford Univ. Press, 2001. [2] M L. Lapidus, In Search of the Riemann Zeros, Amer. Math. Soc., 2008. [3] H. Herichi and ML. Lapidus, Fractal Strings, Quantized Numnber Theory, Fractal Strings and the Riemann Hypothesis, World Sci., 2021. [4] M.L. Lapidus, Towards quantized number theory: Spectral operators and an asymmetric criterion for the Riemann Hypothesis, Philos. Trans. Royal Soc., 2015. [5] ML. Lapidus and M. van Frankenhuijsen, Fractal Geometry, Complex Dimensions and Zeta Functions, Springer, 2nd. edn., 2013. (Received March 08, 2021)