Hung Lu* (hlu@hpu.edu), 1188 Fort Street Mall, Suite 430, Honolulu, HI 96813, and Michel L. Lapidus and Machiel van Frankenhuijsen. Explicit tube formulas for \( p \)-adic fractal strings.

We present an explicit volume formula for the tubular neighborhood of a \( p \)-adic fractal string \( \mathcal{L}_p \), expressed in terms of the underlying complex dimensions. The general tube formula is illustrated by some simple examples, the nonarchimedean Cantor, Euler, and Fibonacci strings. (Received September 20, 2011)