

1077-51-1503

Hung Lu* (hlu@hpu.edu), 1188 Fort Street Mall, Suite 430, Honolulu, HI 96813, and **Michel L. Lapidus** and **Machiel van Frankenhuysen**. *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)