

Meeting: 1001, Evanston, Illinois, SS 12A, Special Session on Iterated Function Systems and Analysis on Fractals

1001-37-22 **Michel L. Lapidus** and **Erin P.J. Pearse*** (epearse@math.ucr.edu), University of California, Riverside, Mathematics Department, Riverside, CA 92521. *A tube formula for the Koch snowflake curve, with applications to complex dimensions.* Preliminary report.

A formula for the interior epsilon-neighbourhood of the classical von Koch snowflake curve is computed in detail. This function of epsilon is shown to match quite closely with earlier predictions of what it should be. Additionally, the complex dimensions of the Koch snowflake are computed explicitly and its nonmeasurability is shown. (Received June 27, 2004)