

1067-28-79

Kate E Ellis* (kellis1@csustan.edu). *Counting Formulas and Partition Zeta Functions of Atomic Measures.*

It has been shown that the geometric counting function of a fractal string can be expressed in terms of a sum over its complex dimensions. In this talk, we will develop and analyze the counting functions associated with a slightly generalized form of an atomic measure which is supported on the boundary of a Cantor-like fractal string. Following the development of the geometric counting function of a fractal string, the counting functions we will consider make use of regularity, partition zeta functions, and complex dimensions indexed by regularity. (Received July 17, 2010)