

1095-37-261

**Rolando de Santiago\*** (desantiagorolando@gmail.com), **Michel L Lapidus**, **Scott A Roby**  
and **John A Rock**. *Lattice strings and the Minkowski nonmeasurability of recursive strings.*

The structure of complex dimensions of lattices strings is a central topic in the study of self-similar fractal strings. In the special case of lattice strings, it will be shown that there is a connection between lattice strings and linear recurrence relations with regard to the multiplicities of lengths and the set of complex dimensions. We generalize this structure to the class of generalized fractal strings called recursive strings which have complex dimensions that exhibit a type of lattice structure. In this talk, we discuss the development of recursive strings and their complex dimensions as well as a criterion for Minkowski measurability in the context of ordinary fractal strings. In particular, this criterion reveals the fact that the boundary of an ordinary fractal string which is a recursive string is Minkowski nonmeasurable. (Received September 10, 2013)