

On p -adic string amplitudes in the limit p approaches to one

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In this talk we will discuss the limit p approaches to one of tree-level p -adic open strings amplitudes through its connection with local zeta functions. The p -adic Koba-Nielsen string amplitudes are finite sums of Igusa's local zeta functions, and they are convergent integrals admitting meromorphic continuations as rational functions. Denef and Loeser established that the limit $p \rightarrow 1$ of Igusa's local zeta functions give rise to new objects, that they called topological zeta functions. Thus, by using Denef-Loeser's theory of topological zeta functions, we show that limit $p \rightarrow 1$ of a tree-level p -adic open strings amplitudes give rise to a new amplitudes. which we have called Denef-Loeser topological string amplitudes.