SEMPARIS – Séminaires en région parisienne

http://string.lpthe.jussieu.fr/semparis/

Seminaire exceptionnel

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Domaines: hep-th

 ${\bf Titre}: New\ probes\ of\ the\ string\ spectrum$

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Résumé: As is well known, the string spectrum comprises infinitely many states that can collectively be visualized along Regge trajectories of increasing mass and spin. Its massless and lightest levels, as well as certain higher spins including the leading Regge trajectory, have been the focus of past studies. In principle, access to any state is possible, but the traditional methodology is non-covariant and does not immediately lead to irreducible representations of the Wigner little group. In this talk, we will discuss a new and covariant technology of constructing the string spectrum. It is based on the observation that there is a bigger symmetry behind Virasoro constraints: the symplectic algebra that commutes with the spacetime Lorenz algebra. This enables excavating string states and their interactions by entire trajectories, rather than individually.