

Scale separation on $\text{AdS}_3 \times S^3$ with and without supersymmetry

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String theory predicts extra spatial dimensions. The compactification of these extra dimensions give mass to particles. Knowing the spectrum of the particles is thus a central task to answer the question of which particle is observable. Moreover, to make sense of a lower-dimension theory one assumes that the extra dimensions are “small”. However, usually this is not the case, especially if one considers an AdS external space. This problem is known as “scale separation” and is another challenge to phenomenological string theory. This talk will be about computing the spectrum of a 6 dimensional theory around an AdS_3 background and showing that these vacua are scale-separated.

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