On a power counting theorem for a pˆ{2a}ϕˆ4 tensor field theory

Joseph Ben Geloun[*1]

[1]Albert Einstein Institute – Potsdam-Golm, Germany

Abstract

I will discuss a new type of Tensorial Field Theory on copies of U(1), incorporating a Laplacian on the ϕˆ4 interaction. A power counting theorem follows a multi-scale analysis and, clearly, we can realize that the terms which were power-counting suppressed in the usual theory become, in some cases, the dominant contributions. This is encouraging for identifying new types of tensor models having a scaling limit different from the so-called branched polymers.

[*]Speaker