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Bootstrapping Inflationary Fluctuations

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I will describe an approach to compute correlation functions of primordial fluctuations that is based on symmetries and singularities. It borrows tools from other areas of theoretical physics, like the S-matrix program of particle physics, as well as the conformal bootstrap. Using this approach, I will present some new results for inflationary three and four-point functions of scalars and tensors. These shapes do not depend on the specific inflationary model, as long as the fluctuations minimally break de Sitter symmetry. I will also comment on further roads in pursuit of this "cosmological bootstrap", with a goal towards classifying a large set of shapes of primordial non-gaussianity.

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