Perturbation theory for LSS: from the IR to the UV

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In this talk I discuss recent progress in the understanding of a perturbative description of large-scale structure formation. Such a description has the advantage of being much more flexible than numerical methods, and it can be adapted more easily to non-standard cosmological models. One issue that needs to be understood is the theoretical error. We discuss two approaches for estimating the error by using a separate treatment of very long (IR) and short (UV) scale fluctuations, respectively.