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Cosmological Correlators From Flat Space Feynman Integrals

Monday 28 October 2024 12:10 (20 minutes)

In this talk, I present a novel connection between cosmological correlators and flat-space Feynman diagrams in momentum space. Focusing on Witten diagrams with heavy internal lines and light external legs, I establish a **Massive Flat Space (MFS) limit**. In this limit, such heavy diagrams simplify to contact graphs with a vertex factor equal to the amputated n-point diagram in flat space. As an application of the MFS limit, I obtain **simple expressions for specific inflationary one-loop graphs, in the small sound speed regime.**

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