



**Seminar, Department of Physical Sciences,
Bose Institute, Kolkata**

**Kite and Triangle diagrams through Symmetries
of Feynman Integrals**

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Abstract: The Symmetries of Feynman Integrals (SFI) is a method for evaluating Feynman Integrals which exposes a novel continuous group associated with the diagram which depends only on its topology and acts on its parameters. Using this method we study the kite diagram (a two-loop diagram with two external legs) and the most general triangle diagram (one-loop diagram with three external legs) with arbitrary masses and space-time dimensions. Generically, this method reduces a Feynman integral into a line integral over simpler diagrams. We identify the locus/loci in parameter space where the integrals further reduce to a mere linear combination of simpler diagrams. We generalize and revisit some known results.

Date/time: October 25, 2024 (Friday) at 02:00 PM

Venue: Physics Seminar Room (204, second floor, UAC, BI)