

PARTICLEFACE 2021: Unraveling New Physics Workshop & Management Committee Meeting



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Towards precise false vacuum decay rates

Wednesday 14 July 2021 15:30 (30 minutes)

Appearance of meta-stable minima is a common phenomenon in beyond the standard model theories, at zero and finite temperatures. Computing the lifetime of such transitions may become computationally (and conceptually) involved, especially in the presence of multiple scalar fields and non-trivial potential configurations. I will present recent progress on the determination of the bounce and the associated FindBounce package. I will then discuss the one loop quantum corrections and present an example of a completely analytically solvable model, where the entire rate was computed analytically.

Presenter: NEMEVSEK, Miha

Session Classification: Working Group Meeting