

Feynman Propagators

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Abstract The Klein-Gordon equation has several interesting and relevant propagators (also called Green's functions or two-point functions), e.g., the forward/backward propagators and the Feynman propagator. In this talk I will discuss an approach to construct propagators on curved spacetimes. This approach can also be applied for non-smooth metrics and when external electromagnetic fields are present. I will then show that in some situations the Feynman propagator can be constructed as the limit of the resolvent of the Klein-Gordon operator. This is closely related to the problem of the self-adjointness of the Klein-Gordon operator.