M A T H E M A T I C A L P H Y S I C S S E M I N A R

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About Feynman path integrals

Abstract

In the 1950's Richard Feynman introduced a new presentation of Quantum Physics imitating statistical physics and relying on a "sum over histories" of a phase factor. This phase factor in first approximation depends only on the Lagrangian action functional in classical physics. This approach , while very deep from a conceptual point of view is ridden with mathematical difficulties not yet completely solved. I shall describe a half rigorous approach based on my book with C. DeWitt-Morette published by Cambridge University Press.