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Martin Grothaus* (grothaus@mathematik.uni-kl.de), P.O. Box 3049, 67653 Kaiserslautern, Germany. *Bargmann–Segal space, generalized functions and Feynman–Kac formula*. Preliminary report.

We give an improved characterization of a space of regular generalized functions in white noise via the Bargmann–Segal space. This enables use to derive a Wick formula for the product of regular generalized functions with Donsker’s delta. As an application we construct Feynman–Kac integrands for localized initial conditions and improve a result of Halim Doss on the construction of solutions to the Schrödinger equation. (Received September 14, 2010)