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David Nualart* (nualart@ku.edu), Kansas University, Department of Mathematics, Lawrence, KS 66045. *Rate of convergence in the Breuer-Major theorem.*

We will survey the Malliavin-Stein method to derive estimates for the total variation distance in Gaussian approximations. As an application, we present an estimate for the total variation distance, in the framework of the Breuer-Major theorem, assuming that the underlying function is only once weakly differentiable and, together with its derivative, has finite fourth moment with respect to the standard Gaussian density. This result is proved using a combination of Gebelein's inequality and some new estimates involving Malliavin operators. (Received February 03, 2020)