Abstract

Bismut's Way of the Malliavin Calculus for Large Order Generators on a Lie Group †

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We give an adaptation of the Malliavin Calculus of Bismut type in order to show that an operator of big order on a compact connected. Lie group is such that the associated semi-group has an heat-kernel. By mixing Wentzel-Freidlin estimates which were establised by us for non-markovian semi-groups and the Malliavin Calculus, we deduce logarithmic estimates of the heat-kernel in small time. We use deeply the symmetry of the group in the proof of the theorem.