ON ANALYTIC CHARACTERIZATIONS OF GAUGEABILITY FOR GENERALIZED FEYNMAN-KAC FUNCTIONALS

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We give analytic characterizations of gaugeability for generalized Feynman-Kac functionals including continuous additive functional of zero quadratic variation in the framework of irreducible, transient m-symmetric Markov processes under the absolute continuity condition with respect to m. Our result improves the previous work due to Chen [1, 2] even if we restrict ourselves to deal with non-local perturbations. We also prove that such a characterization is also equivalent to the subcriticality of the Schrödinger operator associated to our generalized Feynman-Kac semigroup under some conditions.

References

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