

# Approach to the Quantum Field with Exponential Interactions by Singular SPDEs

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We consider the stochastic quantization of the quantum field model with exponential interactions on the two-dimensional torus, which is called Hoegh-Krohn model. The model has been studied by quasi-regular Dirichlet forms. In this talk, we study the model by singular stochastic differential equations, which is recently developed. By the method, we construct the time-global solution and the invariant probability measure of the stochastic quantization, and see the relation to the process obtained by quasi-regular Dirichlet forms. This is a joint work with Masato Hoshino and Hiroshi Kawabi.