

# 1 Non-Markovian Quantum State Diffusion

## 1.1 The Microscopical Model

As mentioned above, the main objective of this work is the description of a system under the influence of an environment. Although

## **1.2 Linear NMSSE**

### **1.2.1 Convolutionless Formulation**

### **1.2.2 Master Equation**

## **1.3 Nonlinear NMSSE**

## **1.4 Markov Limit**

## **1.5 Interpretation of NMSSE**

### **1.5.1 NMSSE as Continuous Measurement**

### **1.5.2 Linear NMSSE as Schrödinger Equation**

### **1.5.3 A Time-Nonlocal Picture**

## **1.6 Finite Temperature Theory**

### **1.6.1 Thermofield Method**

### **1.6.2 Unitary Noise**

## **1.7 Dissipative Two-level System**

## Bibliography