

Comparison of analytical and numerical methods and the effect of bath coupling on the

## quantum decoherence

Peihao Huang, Hang Zheng, Keiichiro Nasu

(Submitted on 3 Nov 2010)

> The dynamics of a qubit in а structured environment is investigated theoretically. One point of view of the model is the spinboson model with a Lorentz shaped spectral density. An