



Contribution ID: 1074

Type: **Oral (Non-Student) / orale (non-étudiant)**

## **The Moyal Equation for open quantum systems**

*Monday 13 June 2016 13:30 (30 minutes)*

We generalize the Moyal equation, which describes the dynamics of quantum observables in phase space, to quantum systems coupled to a reservoir. It is shown that phase space observables become functionals of fluctuating noise forces introduced by the coupling to the reservoir. For Markovian reservoirs, the Moyal equation turns into a functional differential equation in which the reservoir's effect can be described by a single parameter.

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**Session Classification:** M2-4 Mathematical Physics (DTP) / Physique mathématique (DPT)

**Track Classification:** Theoretical Physics / Physique théorique (DTP-DPT)