

# “PERTURBATIVE METHOD” TO COMPUTE FREQUENCY-FILTERED AND TIME-RESOLVED CORRELATION FUNCTIONS

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Poster.

We propose a perturbative formalism for calculating frequency-filtered and time-resolved second order correlation functions from a driven light-emitting system in the steady state. This is an alternative formulation of the “sensor method” [1] in which additional sensors are coupled to the system of interest. Our method has the advantage of not requiring any small parameters for numerical computation of the second-order optical coherence besides giving an insight on the main physical processes contributing to the time-resolved correlation function.

[1] E. del Valle, A.Gonzales-Tudela, F.P.Laussy, C.Tejedor, and M.J.Hartmann, *Phys. Rev. Lett.* **109**, 183601 (2012)