

# Review of: "Dynamics of Three-Level Laser Pumped by Electron Bombardment"

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**Potential competing interests:** No potential competing interests to declare.

This manuscript proposes a three-level atoms and the cavity modes interact with the two-mode vacuum reservoir. The mean and variance of the photon number and the quadrature squeezing for the cavity light is analyzed, with conclusions that the presence of the spontaneous emission process leads to a decrease in the mean and variance of the photon number. The effect of the vacuum reservoir noise on the photon-number variance and the quadrature squeezing of the cavity light is analyzed.

The paper is well-written with interesting results. However, how the electron bombardment pumped the three-level laser and the two-mode vacuum reservoir coupled the three-level laser? The caption of Fig. 1 needs to be in details. Are the quantum Langevin equations based on the interaction picture? How this picture Being clarified of the above points, I would recommend publication.