## 24th Australian Institute of Physics Congress



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## Quantum transduction with atomic three-level systems

Tuesday 13 December 2022 18:45 (15 minutes)

We investigate a scheme for microwave-to-optical transduction using atomic three-level systems. Using quasidegenerate perturbation theory we derive an effective Hamiltonian description for the conversion process. We find that the conversion is limited by off-resonant effects like unintended biphoton emission.

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