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# Transient effects due to lead-dot coupling modulation in thermoelectric transport through a quantum dot

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## Abstract

Within a non equilibrium Green's function approach, we evaluate electric and thermal currents for a single orbital quantum dot coupled to two reservoirs. Besides the gate voltage modulation, we also explore the effects of the time dependence of the lead-dot couplings. The question of dissipation accompanying these time-dependences is addressed. As an application we investigate a fast driving cycle for a zero-biased heat pump.

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