## Abstract Submitted for the MAR08 Meeting of The American Physical Society

Superradiance And Electron Transport Through Nanosystems LUCA CELARDO, LEV KAPLAN, Department of Physics , Tulane University, New Orleans, LA 70118 — Electron transport through a sequence of potential wells is investigated. Using the effective non hermitian Hamiltonian approach to open systems, the transition to a superradiance regime is shown to occur. The consequences of the superradiance transition on the conductance, including negative differential conductance, are investigated.

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