1041-60-29   **Javiera Barrera*** (`javiera.barrera@usm.cl`), Departamento de Matematica UTFSM, Av. España 1680, Casilla 110-V, Valparaiso, Valparaiso, Chile, and **Olivier Bertoncini** and **Roberto Fernández**. *Cut-off and exit from metastability: two sides of the same coin.*

We present a general framework linking cut-off and exit excursions for birth-and-death processes on a countable alphabet. Under suitable hypotheses, we prove that cut-off convergence towards a (local) equilibrium is accompanied by exponentially distributed out-of-equilibrium excursions. Furthermore, a typical trajectories leading to these excursions and final cut-off trajectories are related by time inversion; in particular their time lengths have identical laws. (Received July 16, 2008)