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A closer look at activity in metabolic networks NATALI GUL-BAHCE, Los Alamos National Laboratory, TAKASHI NISHIKAWA, Southern Methodist University, ADILSON E. MOTTER, Northwestern University — Singlecell organisms are assumed to optimize growth under specific conditions. Using flux balance analysis, it is possible to estimate the number of reactions that are utilized (active) by the metabolism in random and optimal metabolic states. Here we investigate the mechanisms that determine the number of active reactions mathematically and compare them to those of real organisms.

> Natali Gulbahce Los Alamos National Laboratory

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