

Tutorial 2

1. Is liveness monotone (for general PNs)?
2. Can a configuration graph of an EPN have an exponential size?
3. Can a region net have an exponential size?
4. Prove that the following four models: PN, VAS (vector addition system), VASS (vector addition system with states) and counter automaton without zero tests have the same expression power.

Homework (not mandatory)

1. Does there exist a net N and two configurations $M, M' > M$, such that (N, M) is live and 1-bounded, while (N, M') is bounded but not live?