

## Homework #1

- 1) Read papers TS\_Tutorial.pdf and ml-02.pdf
- 2) Compute posterior distribution of the mean for slide 48, assuming a constant variance.
- 3) Implement in python, and plot graphics for the multi-armed bandit with values [3, 7, 10] with the following strategies:
  - Epsilon-greedy with decay proportional to  $1/t$
  - Optimistic initial values
  - UCB1 (upper confidence bound)
  - Thompson sampling (Bayesian Bandits)