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// T16modPoi.sce
// SIMULATION AND ESTIMATION OF POISSON MODEL
// Experiments
// - change parameter of the model laS
// -----
exec("ScIntro.sce",-1), mode(0)

nd=500; // 1
// SIMULATION // 2
laS=4; // parameter // 3
y= grand(nd,1,"poi",1/laS) // simulation // 4
// 5
S=0; ka=0; // initial statistics // 6
// ESTIMATION // 7
for t=1:nd // 8
    S=S+y(t); // update of statistics // 9
    ka=ka+1; // 10
    laM(t)=ka/S; // point estimate of laS // 11
end // 12
// 13
// RESULTS // 14
plot(laM) // 15
title 'Evolution of point estimates of the parameter' // 16

```

Description of the program

- Rows 2 set parameters of the model
- Rows 5–7 perform the time loop for simulation
- Row 9 sets initial statistics (no prior information)
- Rows 11–15 perform time loop for estimation
 - 12–13: update of statistics
 - 14: point estimates of parameters