Results comparison with Brunel's figures

Simulation of a network of 10,000 pyramidal cells and 2,500 interneurons, with connection probability 0.1 and *JE* D 0:1 mV. For each of the four examples are indicated the temporal evolution of the global activity of the system (instantaneous firing frequency computed in bins of 0.1 ms), together with the firing times (rasters) of 50 randomly chosen neurons. The instantaneous global activity is compared in each case with its temporal average (dashed line).

Figure A)

Almost fully synchronized network, neurons firing regularly at high rates (*g*=3, *nu_ext/nu_thr*=2).

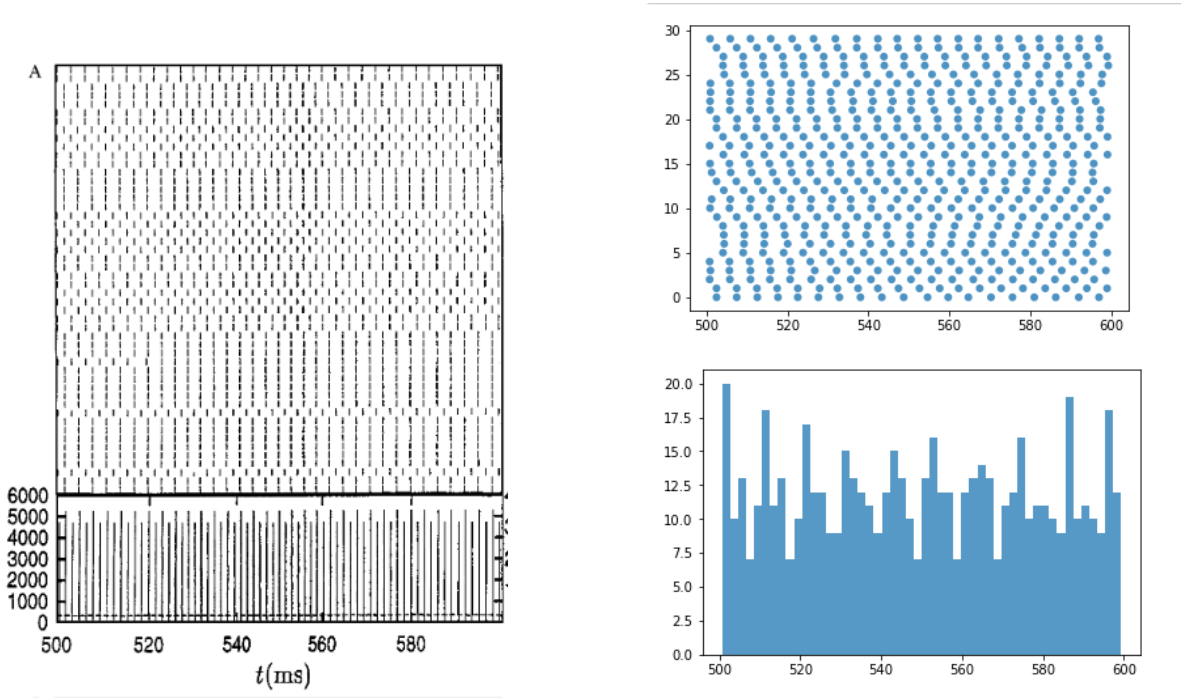
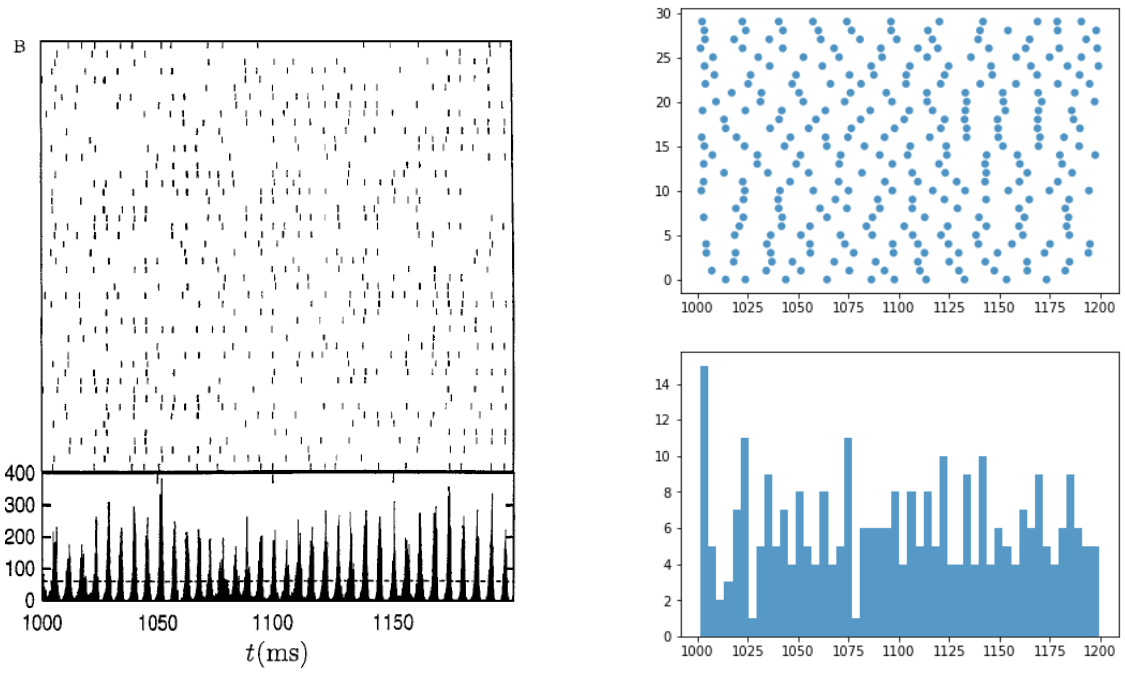


Figure B)

Fast oscillation of the global activity, neurons firing irregularly at a rate that is lower than the global frequency (*g* =6, *nu_ext/nu_thr* =4).



Results comparison with Brunel's figures

Simulation of a network of 10,000 pyramidal cells and 2,500 interneurons, with connection probability 0.1 and *JE* D 0:1 mV. For each of the four examples are indicated the temporal evolution of the global activity of the system (instantaneous firing frequency computed in bins of 0.1 ms), together with the firing times (rasters) of 50 randomly chosen neurons. The instantaneous global activity is compared in each case with its temporal average (dashed line).

Figure C)

Stationary global activity, irregularly firing neurons (*g*=5, *nu_ext/nu_thr* D=2).

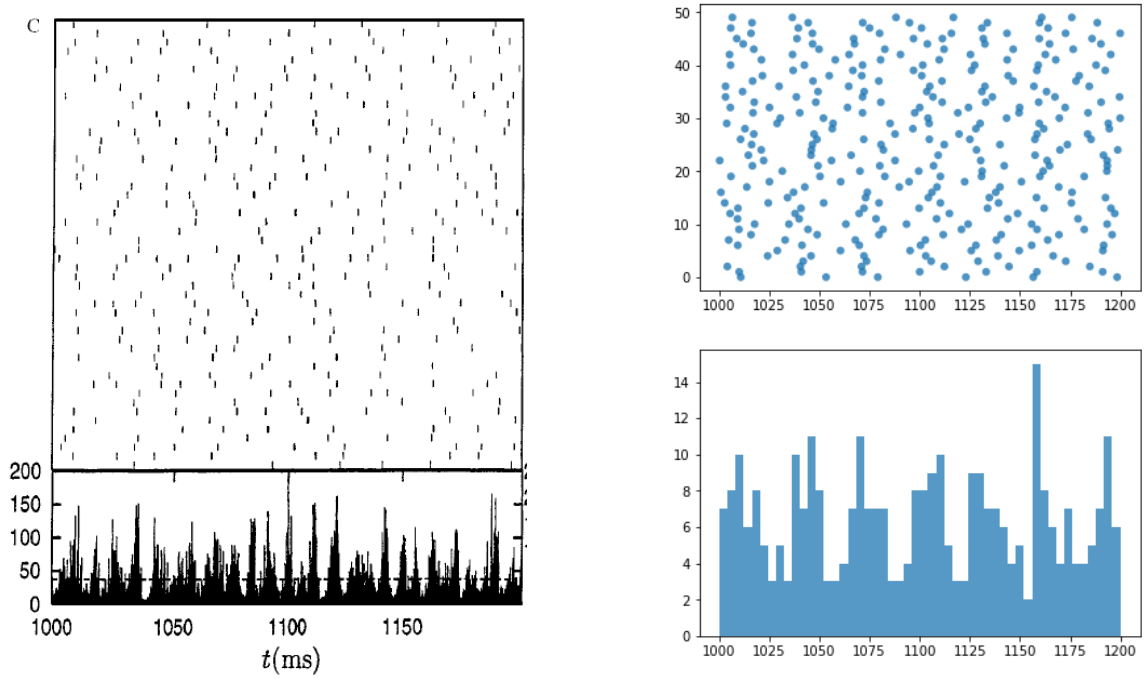


Figure D)

Slow oscillation of the global activity, neurons firing irregularly at very low rates (*g*=4.5, *nu_ext/nu_thr*=0.9).