# LAB ROTATION 02
# 4th Week Assignment

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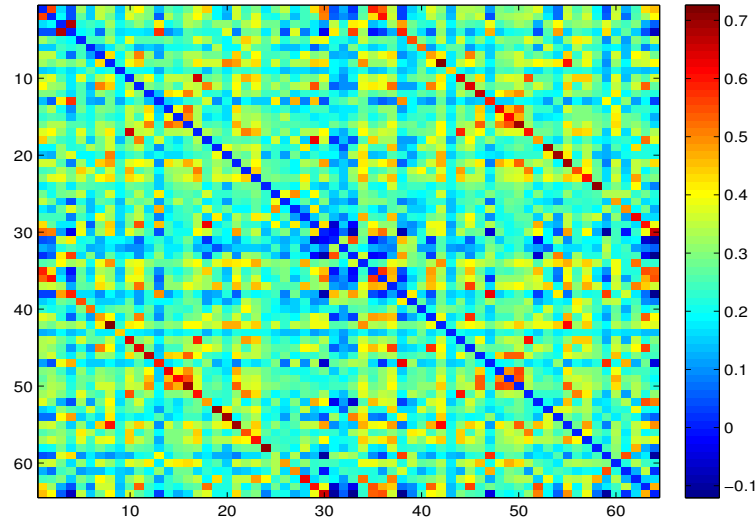
02.10.2013



Figure 1, Empirical correlation matrix with $r = 0$ threshold applied

The following python command script is used for output data matrices:

```
python "fhn_time_delays.py          <n_ij>
FSL_ROIs_distance_matrix.dat    <c>    <D>    <v>    <t>"
```

For the input functional correlation matrix $n_{ij}$, I have used $A.txt$

# 1 Related Figures: Threshold versus Coupling Strength
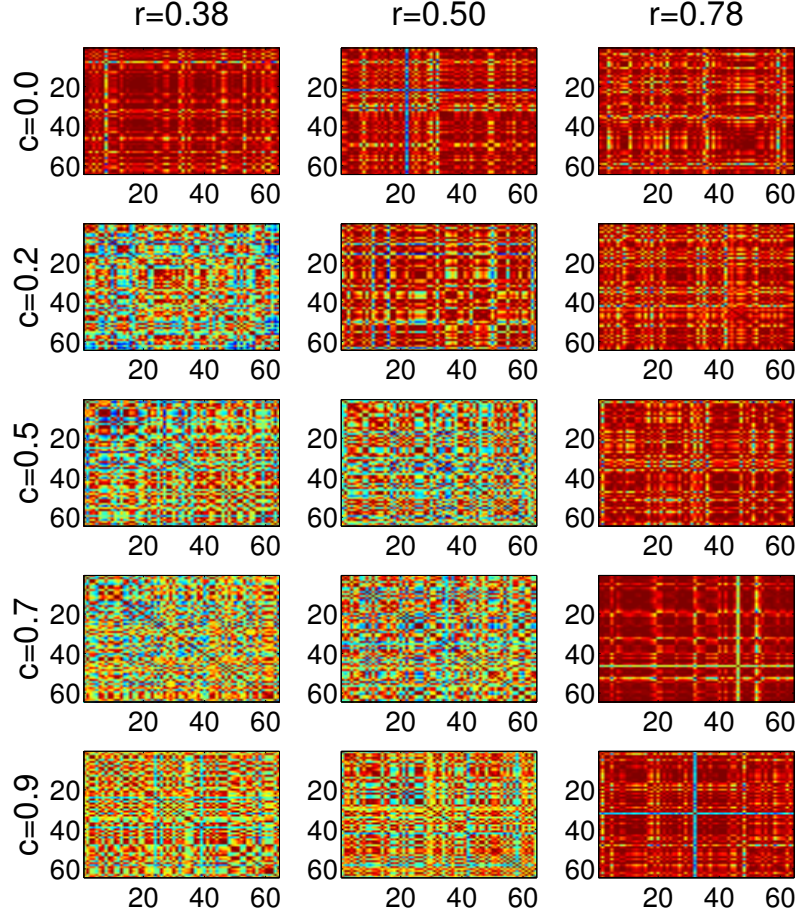


Figure 2, $t = 5000ms$, $D = 0.5$, $v = 7m/s$, $a = 1.30$, $\varepsilon = 0.005$, $\gamma = 0.05$, $(x_0, y_0) = (-0.75, -1)$

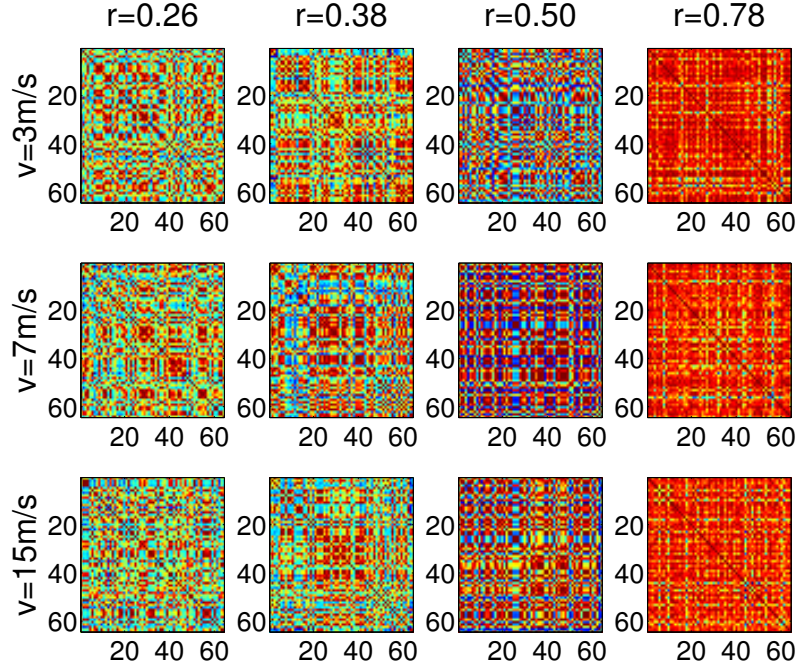# 2   Related Figures: Threshold versus Velocity



Figure 3, $t = 5000ms$, $D = 0.05$, $c = 0.2$ $a = 1.30$, $\varepsilon = 0.005$, $\gamma = 0.05$, $(x_0, y_0) = (-0.75, -1)$
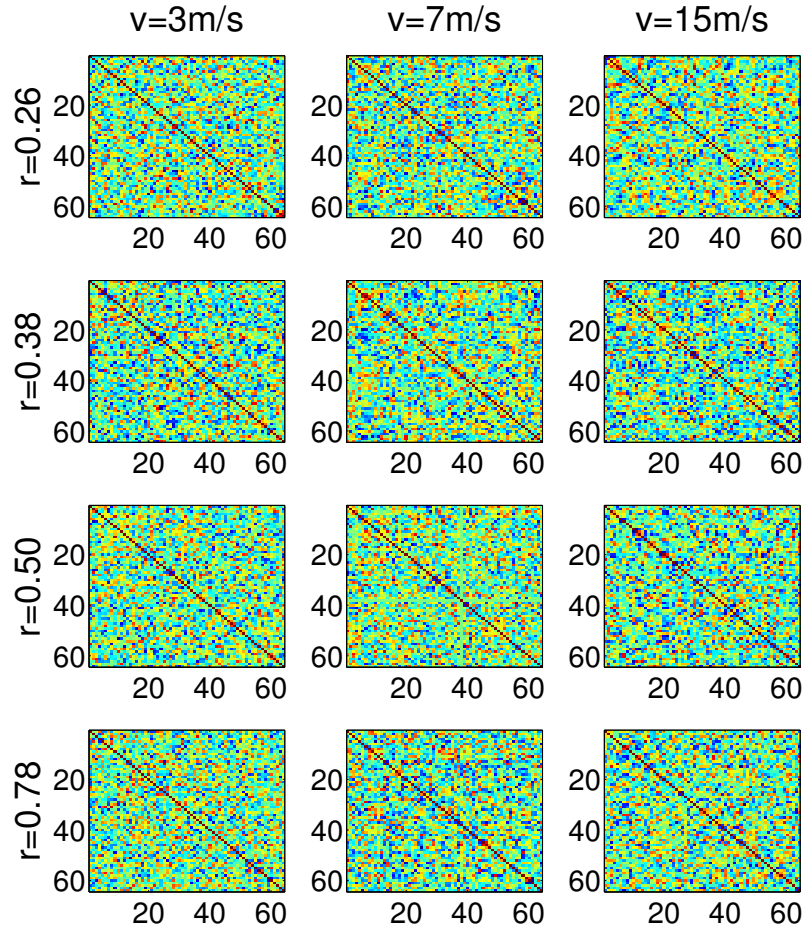
Figure 4, $t = 60000ms (= 1min)$, $D = 0.05$, $c = 0.2$ $a = 1.30$, $\varepsilon = 0.005$, $\gamma = 0.05$, $(x_0, y_0) = (-0.75, -1)$
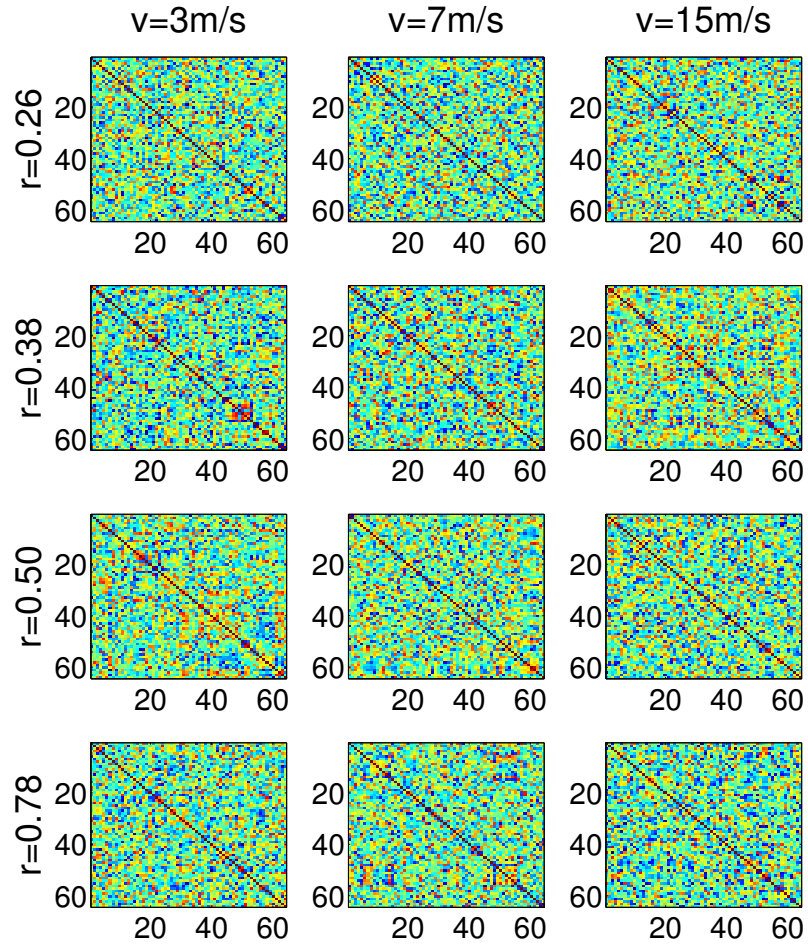
Figure 5, $t = 120000ms(= 2min)$, $D = 0.05$, $c = 0.2$ $a = 1.30$, $\varepsilon = 0.005$, $\gamma = 0.05$, $(x_0, y_0) = (-0.75, -1)$

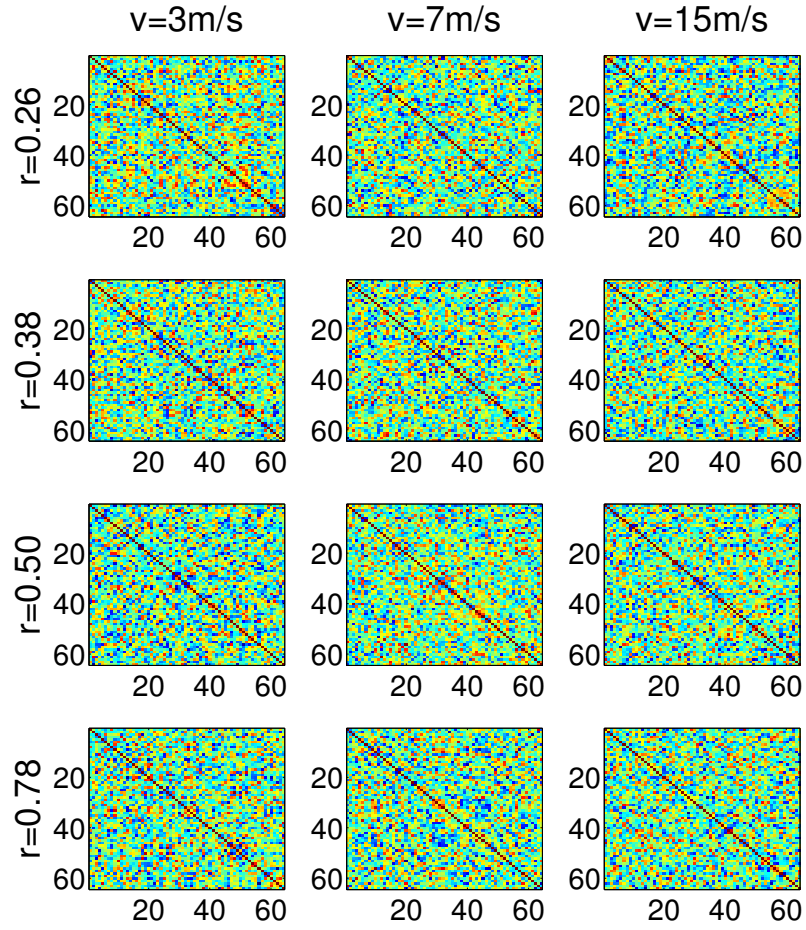Figure 6, $t = 450000 ms (= 7.5 min)$, $D = 0.05$, $c = 0.2$ $a = 1.30$, $\varepsilon = 0.005$, $\gamma = 0.05$, $(x_0, y_0) = (-0.75, -1)$
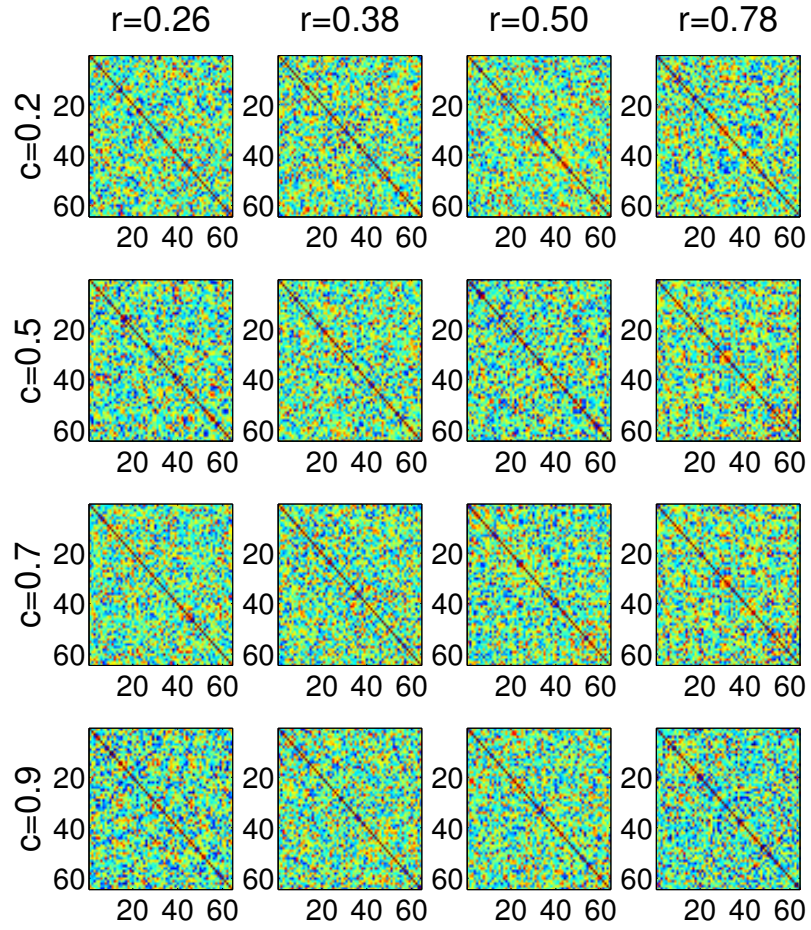
Figure 7, $t = 450000ms(= 7.5min)$, $D = 0.05$, $v = 7m/s$ $a = 1.30$, $\varepsilon = 0.005$, $\gamma = 0.05$, $(x_0, y_0) = (-0.75, -1)$
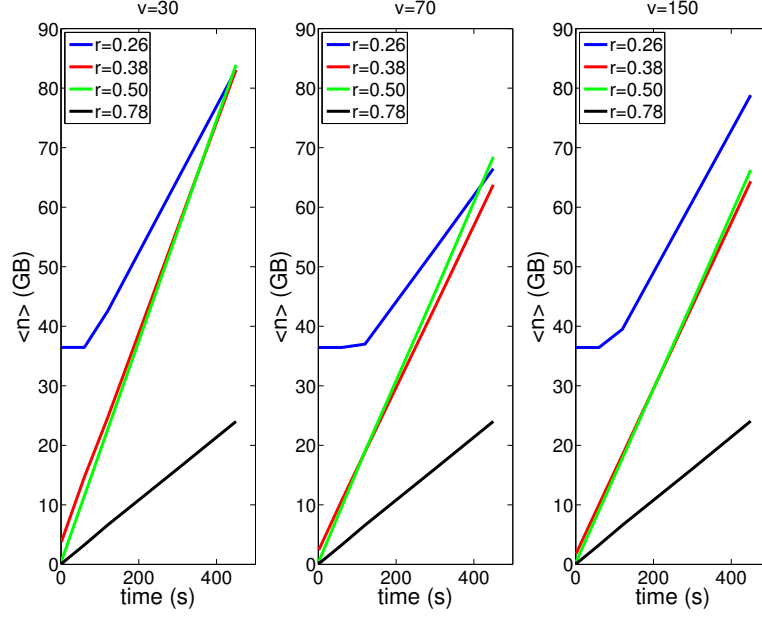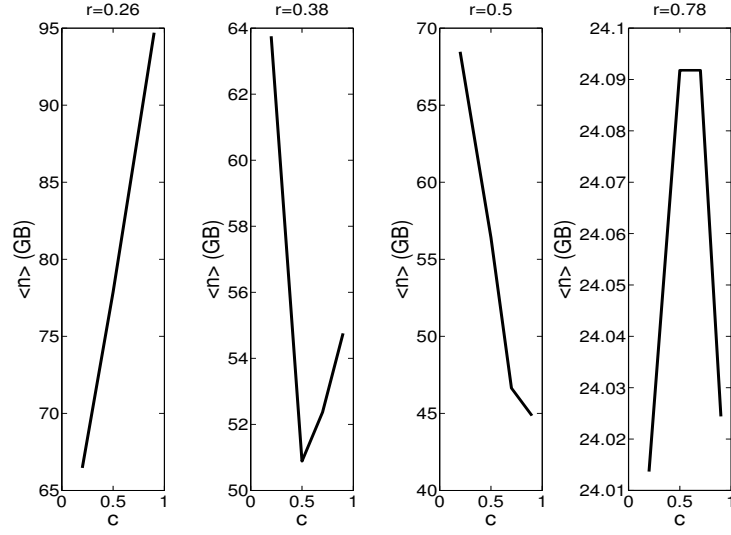
# 3   Some Statistics



Figure 8



Figure 9, $v = 7m/s$, $t = 450000ms$