**A. Grooming networks**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Response | Network sex | Behavior | R | Predictors | Fobs of smooths | % Fobs > Fran |
| In-Degree | mixed-sex | Grooming | 0.46 | Age | 1.93 | 0.81 |
|  |  |  |  | Time in estrus | 1.4 | 0.62 |
|  |  |  |  | Age \* Estrus | 1.91 | 0.67 |
| Out-Degree | mixed-sex | Grooming | 0.72 | Age | 3.29 | 0.88 |
|  |  |  |  | Time in estrus | 0.68 | 0.42 |
|  |  |  |  | Age \* Estrus | 0.61 | 0.26 |
| In-Strength | mixed-sex | Grooming | 0.21 | Age | 0.04 | 0.12 |
|  |  |  |  | **Time in estrus** | 23.12 | **1\*** |
|  |  |  |  | **Age \* Estrus** | 20.22 | **0.99\*** |
| Out-Strength | mixed-sex | Grooming | 0.42 | Age | 1.05 | 0.61 |
|  |  |  |  | Time in estrus | 0.18 | 0.25 |
|  |  |  |  | Age \* Estrus | 1.05 | 0.58 |
| Betweenness | mixed-sex | Grooming | 0.56 | Age | 6.23 | 0.9 |
|  |  |  |  | Time in estrus | 2.64 | 0.72 |
|  |  |  |  | Age \* Estrus | 2.03 | 0.41 |
| Local Transitivity | mixed-sex | Grooming | 0.26 | **Age** | 7.17 | **1\*** |
|  |  |  |  | Time in estrus | 0.64 | 0.52 |
|  |  |  |  | Age \* Estrus | 1.57 | 0.77 |
| Eigenvector Centrality | mixed-sex | Grooming | 0.55 | Age | 0.27 | 0 |
|  |  |  |  | Time in estrus | 0.11 | 0 |
|  |  |  |  | Age \* Estrus | 4.36 | 0 |

**B. Proximity networks**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Response | Network sex | Behavior | R | Predictors | Fobs of smooths | % Fobs > Fran |
| Out-Strength | mixed-sex | Proximity | 0.28 | Age | 0.29 | 0.34 |
|  |  |  |  | Time in estrus | 1.24 | 0.61 |
|  |  |  |  | Age \* Estrus | 0.98 | 0.56 |
| Betweenness | mixed-sex | Proximity | 0.22 | Age | 2.01 | 0.61 |
|  |  |  |  | Time in estrus | 0.04 | 0.06 |
|  |  |  |  | Age \* Estrus | 1.57 | 0.3 |
| Local Transitivity | mixed-sex | Proximity | 0 | Age | 0 | 0 |
|  |  |  |  | Time in estrus | 0.11 | 0.22 |
|  |  |  |  | Age \* Estrus | 0.72 | 0.45 |
| Eigenvector Centrality | mixed-sex | Proximity | 0.23 | **Age** | 2.58 | 1\* |
|  |  |  |  | **Time in estrus** | 1.32 | 1\* |
|  |  |  |  | **Age \* Estrus** | 6.16 | 1\* |