**Supplementary file 1a: Parameters for searching topologies**

|  |  |
| --- | --- |
|  | , where is uniformly distributed in [0,2] |
|  | , where is uniformly distributed in [-2,2] |
|  | , where is uniformly distributed in [-1,1] |
|  | , where is uniformly distributed in [0,2] |
|  |  |
|  | , where is the period length |
|  |  |
| for extrinsic noise |  |
| for intrinsic noise |  |

**Supplementary file 1b: Parameters used in Figure 4**

|  |  |
| --- | --- |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  | 0.4 |
|  | 0.5 |
|  |  |
|  |  |
|  |  |
| for extrinsic noise |  |
| for intrinsic noise |  |

**Supplementary file 1c: Parameters used in Figure 5**

|  |  |
| --- | --- |
| Activator-inhibitor | |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
| for extrinsic noise |  |
| for intrinsic noise |  |
| B inhibits C, and the latter inhibits A | |
|  |  |
|  |  |
|  | the inverse of , and |
|  |  |