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**Meeting Minutes 10:00 2020/09/21**

**Genetic Algorithms**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Method** | **Number Of Variables** | **Variables** | **Minimum** | **Maximum** |
| Random | 1 | Seed | 1 |  |
| Number of elements removed | 0 |  |
| L-Systems | 4 | Seed | 1 |  |
| Axes of symmetry | 0 | 7 |
| Number of grammatical rules | 1 | 4 |
| Length of rules | 2 | 5 |
| Iterations | 1 | 5 |
| CPPNs | 6 | Seed | 1 |  |
| Number of models per CPPN | 1 | 1 |
| Scale | 1 | 1 |
| Number of network layers | 2 | 10 |
| Size of initial layer | 5 | 32 |
| Percentage of elements kept | 0 | 100 |

* Gradient Based Optimisation
  + Compare boundary energy
  + Determine optimal pressure

**Issues**

* MarcMentat crashes
  + Source unclear
  + Compare performance on office PC
  + Install correct python modules first
  + Start Mentat from the command line
* Laptop issues
  + Use BIOS diagnostic tool
  + Perform basic memory checks
* Inertia relief
  + Apply to node 1
    - All directions fixed except z
    - All rotations fixed
  + Fix top right node as well in a single direction to prevent rotation