Download the file `codice.tar`, unpack it, and compile with the command `make`.

Run a simulation with the command:

```
./a.out cpu=3600 topo=0 N=16777216
```

where `cpu` is the total time of the simulation in seconds, `topo` is the topology of the network (`topo=0` for fully connected branching process, `topo=1` for two dimensional directed percolation), `N` is the size of the lattice (should be a power of 2 if `topo=0` or a power of 4 if `topo=1`).

The simulation produces the files `histo-xxx-yyy-zzz.dat`, `histo1-xxx-yyy-zzz.dat`, `power-xxx-yyy-zzz.dat` and `dfa-xxx-yyy-zzz.dat`, where `xxx` is the topology, `yyy` is the logarithm in base 2 of the size of the lattice, `zzz` is the logarithm in base 2 of the size of the sublattice. The files contain the following columns:

`histo-xxx-yyy-zzz.dat`:

- column 1: size of the avalanche S
- column 2: probability $P(S)$
- column 3: logarithmic derivative of $P(S)$ w.r.t. S

`histo1-xxx-yyy-zzz.dat`:

- column 1: duration of the avalanche T
- column 2: probability $P(T)$
- column 3: logarithmic derivative of $P(T)$ w.r.t. T
- column 4: mean size $\langle S(T) \rangle$
- column 5: logarithmic derivative of $\langle S(T) \rangle$ w.r.t. T

`power-xxx-yyy-zzz.dat`:

- column 1: frequency ω
- column 2: power spectrum $P(\omega)$
- column 3: logarithmic derivative of $P(\omega)$ w.r.t. ω

`dfa-xxx-yyy-zzz.dat`:

- column 1: width of the interval n
- column 2: detrended fluctuations $F(n)$
- column 3: logarithmic derivative of $F(n)$ w.r.t. n