Sample based on merging probabilities $P = \frac{K(x_i, x_j)}{\sum_{i \neq j} K(x_i, x_j)}$ coagulation rate of cluster with size x, y

We have M chain with transition prob based on collision kernel function. Matrix generator of Markov chain M →

Q:

1) Should we implement with AR? does it make sense since our kernels are "simple" and we can do it other way?

2) Why 1,5 moment? Interpretation?

3) for $p = 1.5$ on the time interval $[0, 10]$. Specifically, carry out these simulations for the kernels K_3 and K_4, for various values of $N \geq 100$. As $N \to \infty$, the particle system converges to a stationary state that reflects the deterministic solution to equation (1), in the sense that $\hat{c}_N(t, \cdot) \to c(t, \cdot)$ (in an appropriate sense). Therefore, compute also (asymptotic) confidence intervals by repeating the simulations R times. Produce plots

→ convergence in distribution / prob / ?

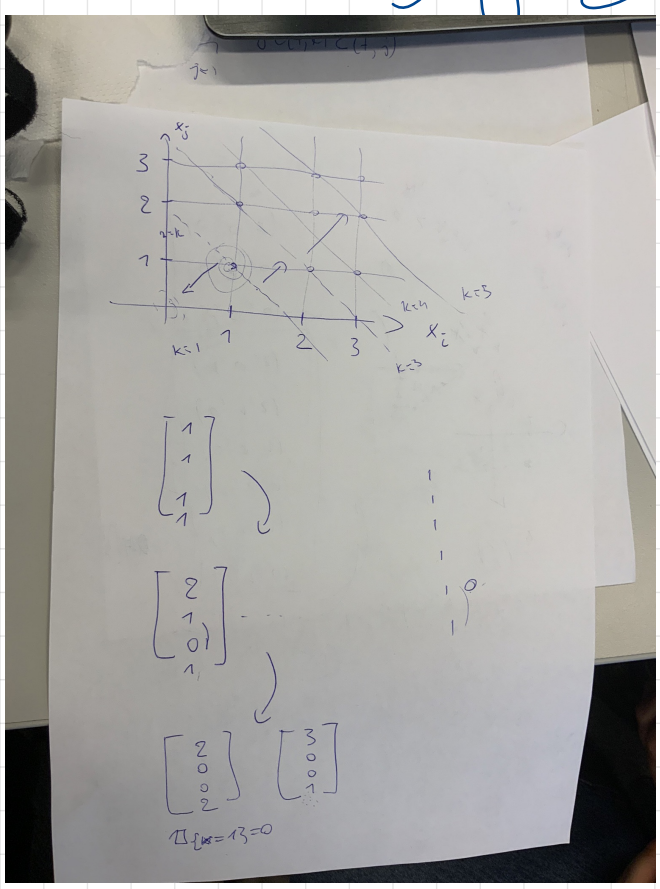
↳ Monte Carlo sequential / Two stages to determine R ?

4) gelation time ? Definition?

5) 4.a) choice $K^* = \alpha x^\beta y^\beta$ which minimize xy if xy small and maximize K^β x, y big

$\hat{K} = \frac{K}{\phi}$ → sample

→ likelyhood ratio



4b) exponential on each direction x, y to increase prob of collision x big part to get quicker to solution