

Siddhant Mishra-Sharma (MIT/AI FI) Summer School

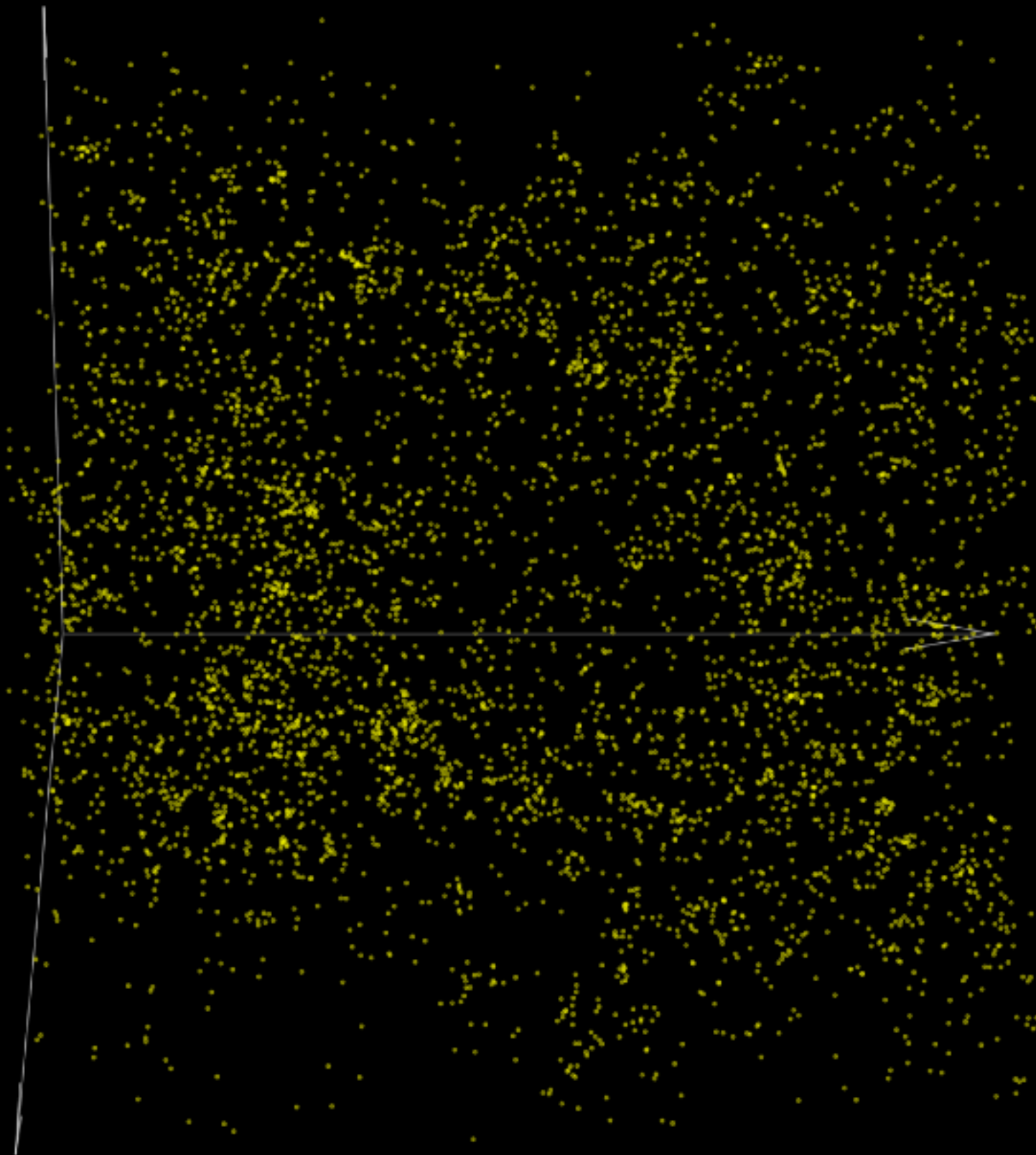
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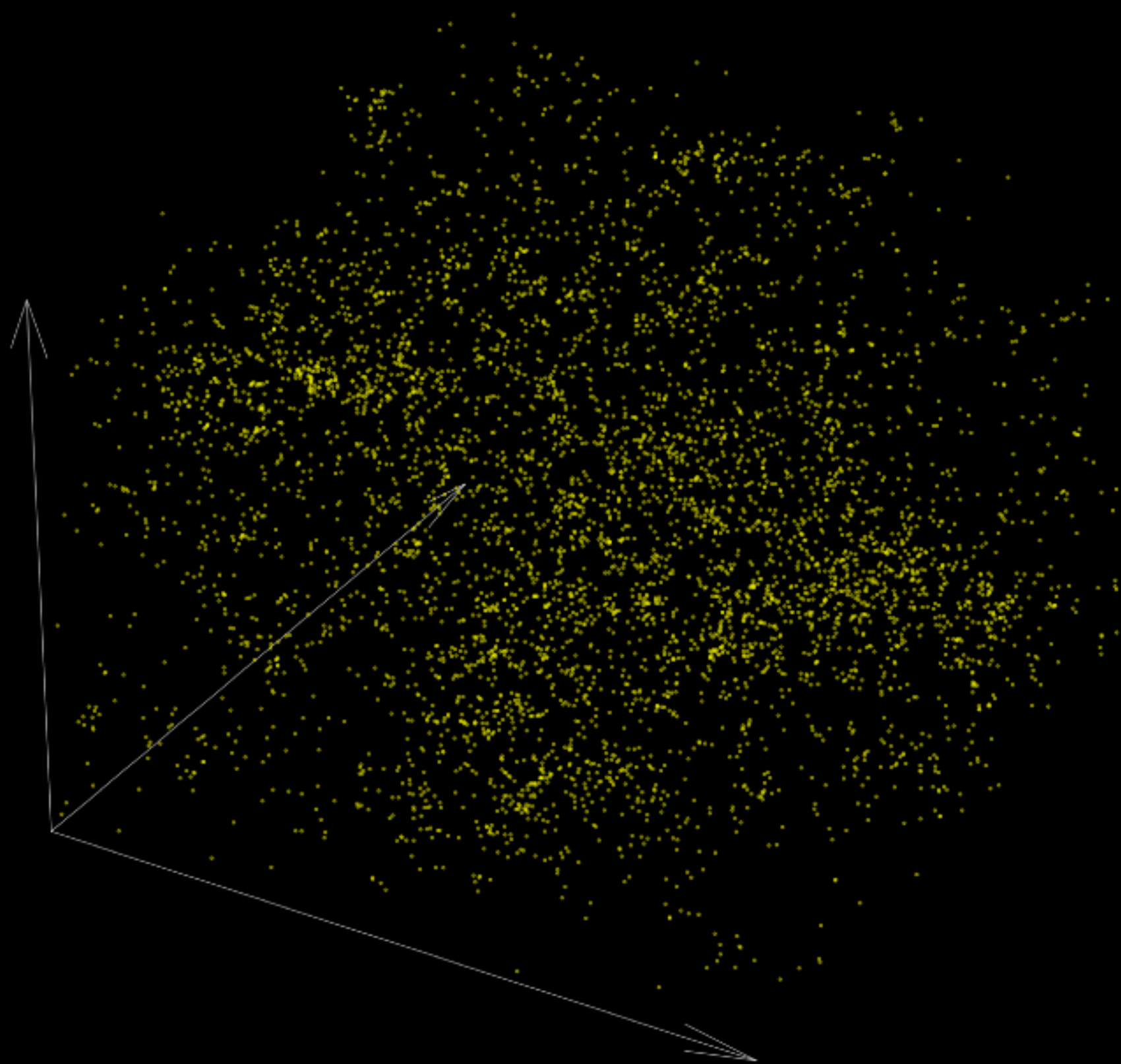
Diffusion on galaxies

$$\Omega_m = 0.10, \sigma_8 = 0.60$$



Conditional generation $x \sim p(x \mid \Omega_n, \sigma_g)$

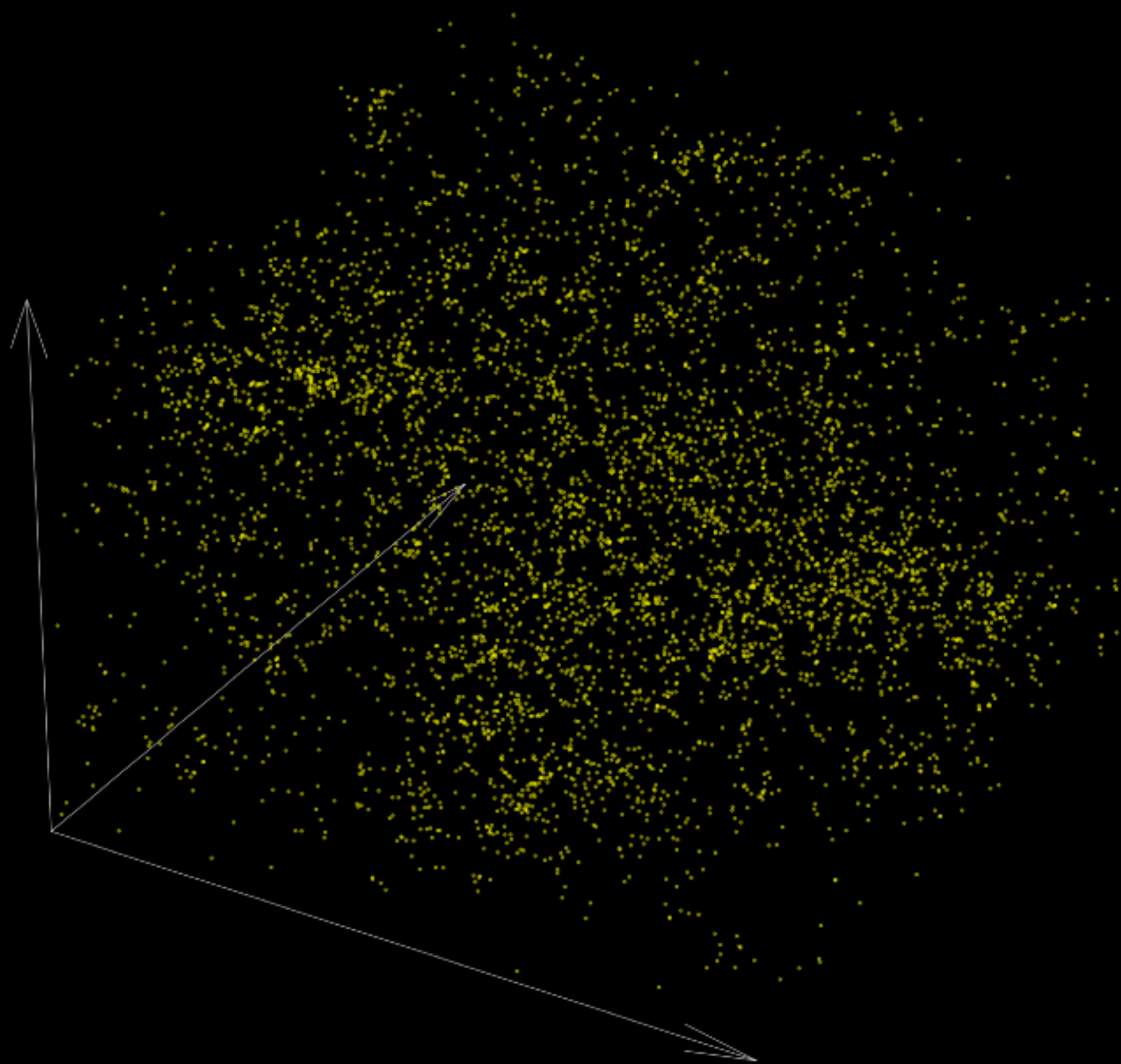
$t = 0.00$



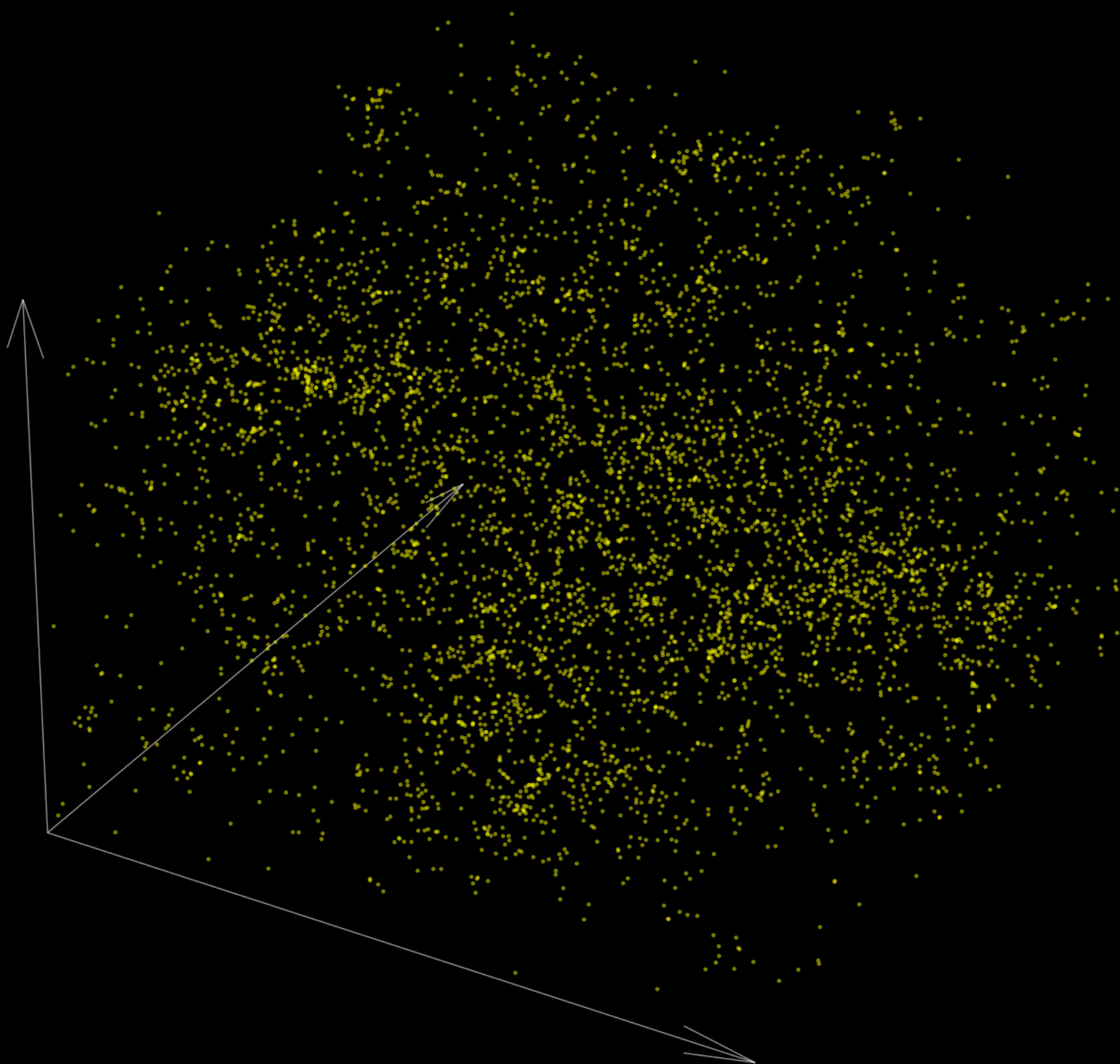
Diffusion processes

SM, Cuesta-Lazaro [in prep]

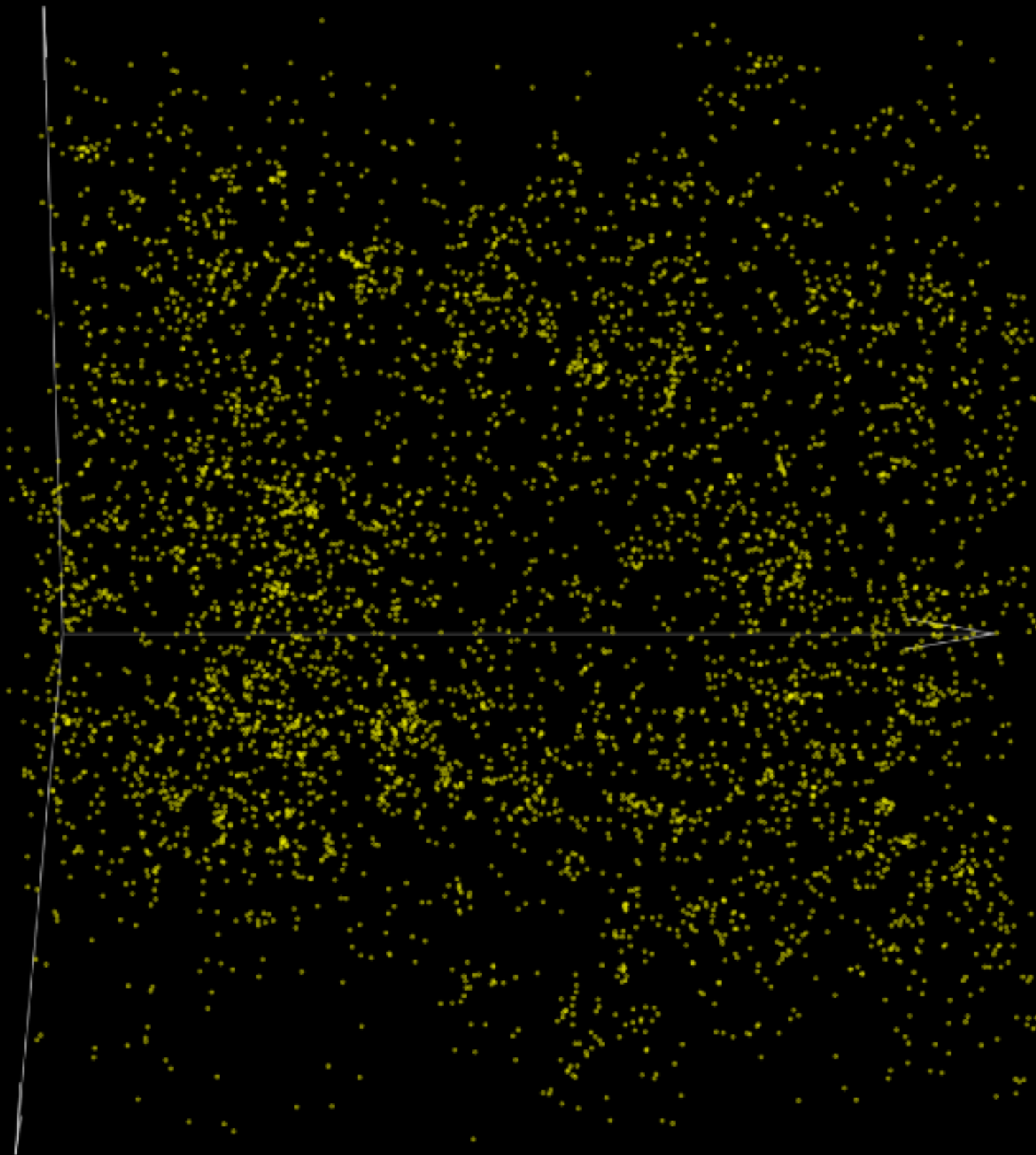
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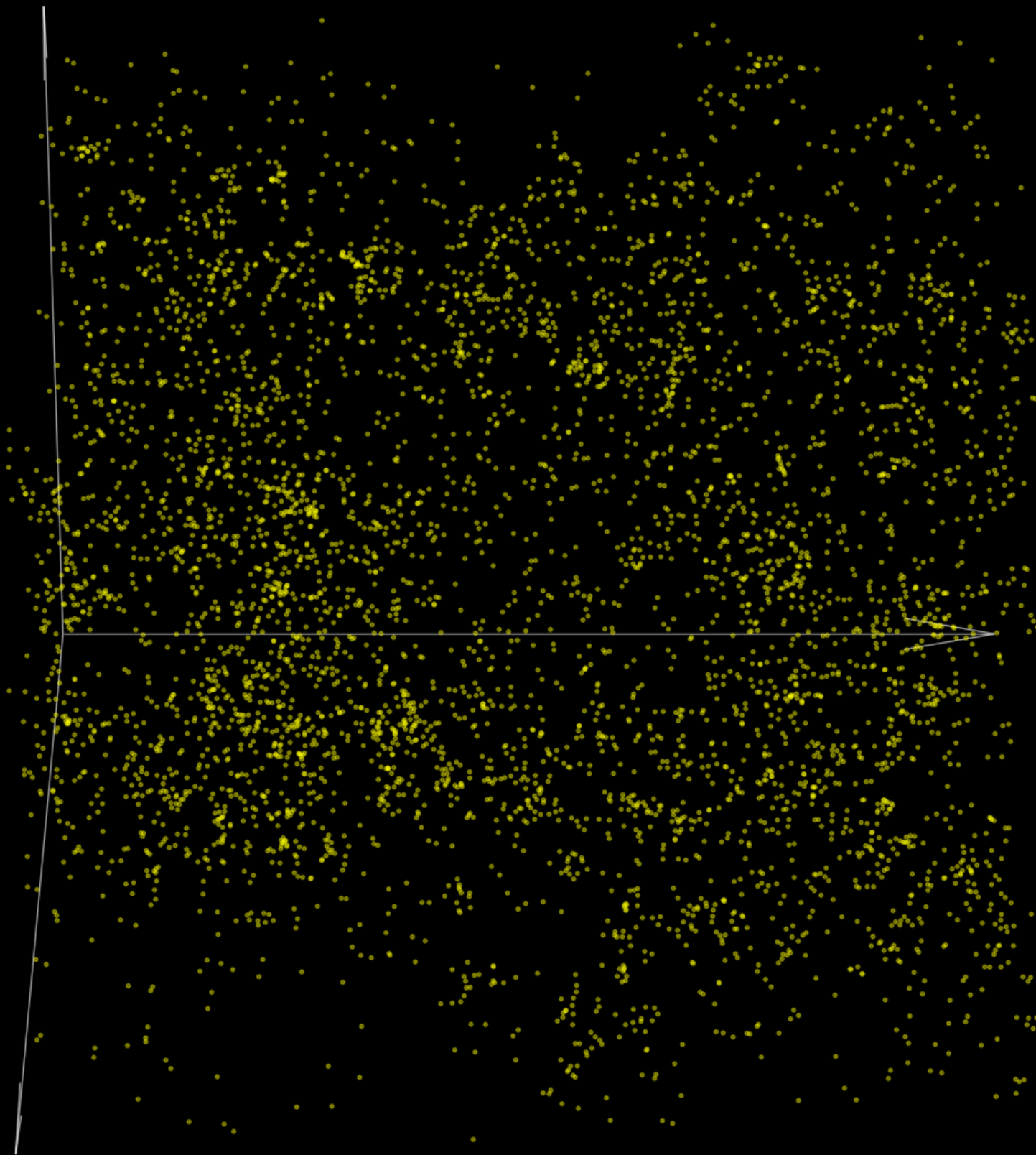
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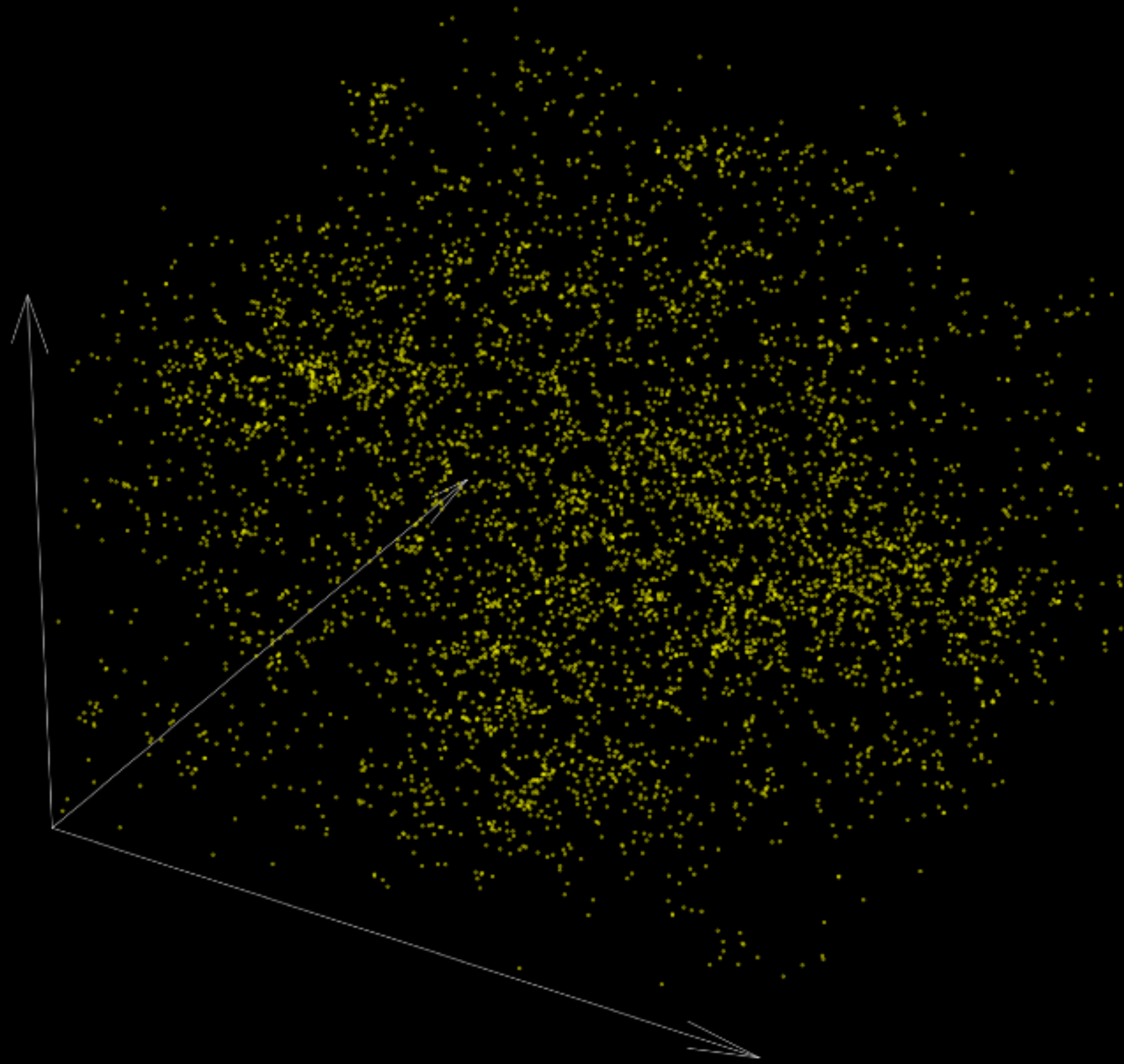


Diffusion on galaxies

SM, Cuesta-Lazaro [in prep]

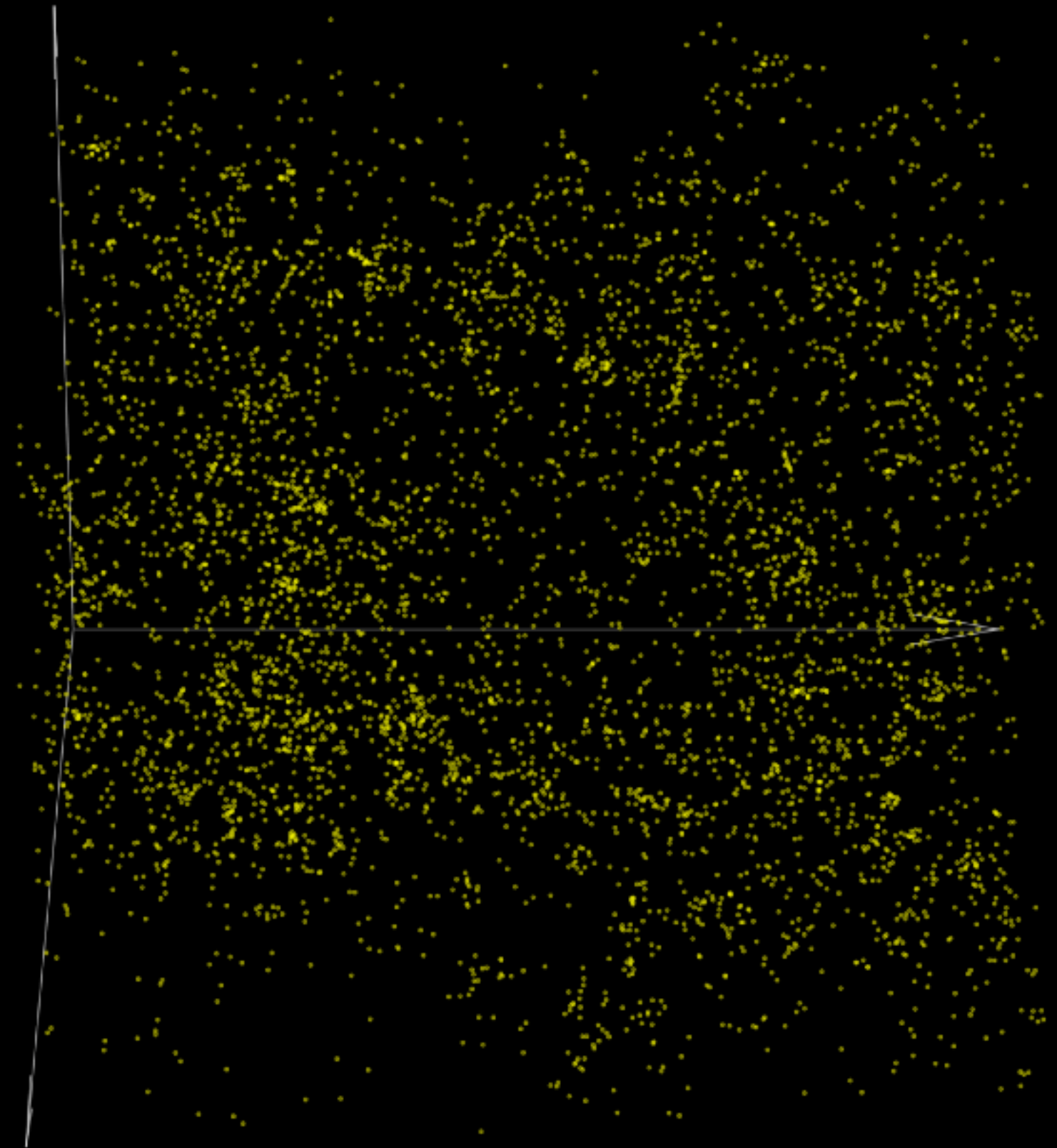
Diffusion process

$$t = 0.00$$



Conditional generation $x \sim p(x \mid \Omega_m, \sigma_8)$

$$\Omega_m = 0.10, \sigma_8 = 0.60$$



Likelihoods and parameter inference

For a given dataset, can use the likelihood $p(x \mid \theta)$ for posterior parameter inference

- Monte Carlo sampling (MCMC, nested sampling, HMC...)
- Variational inference