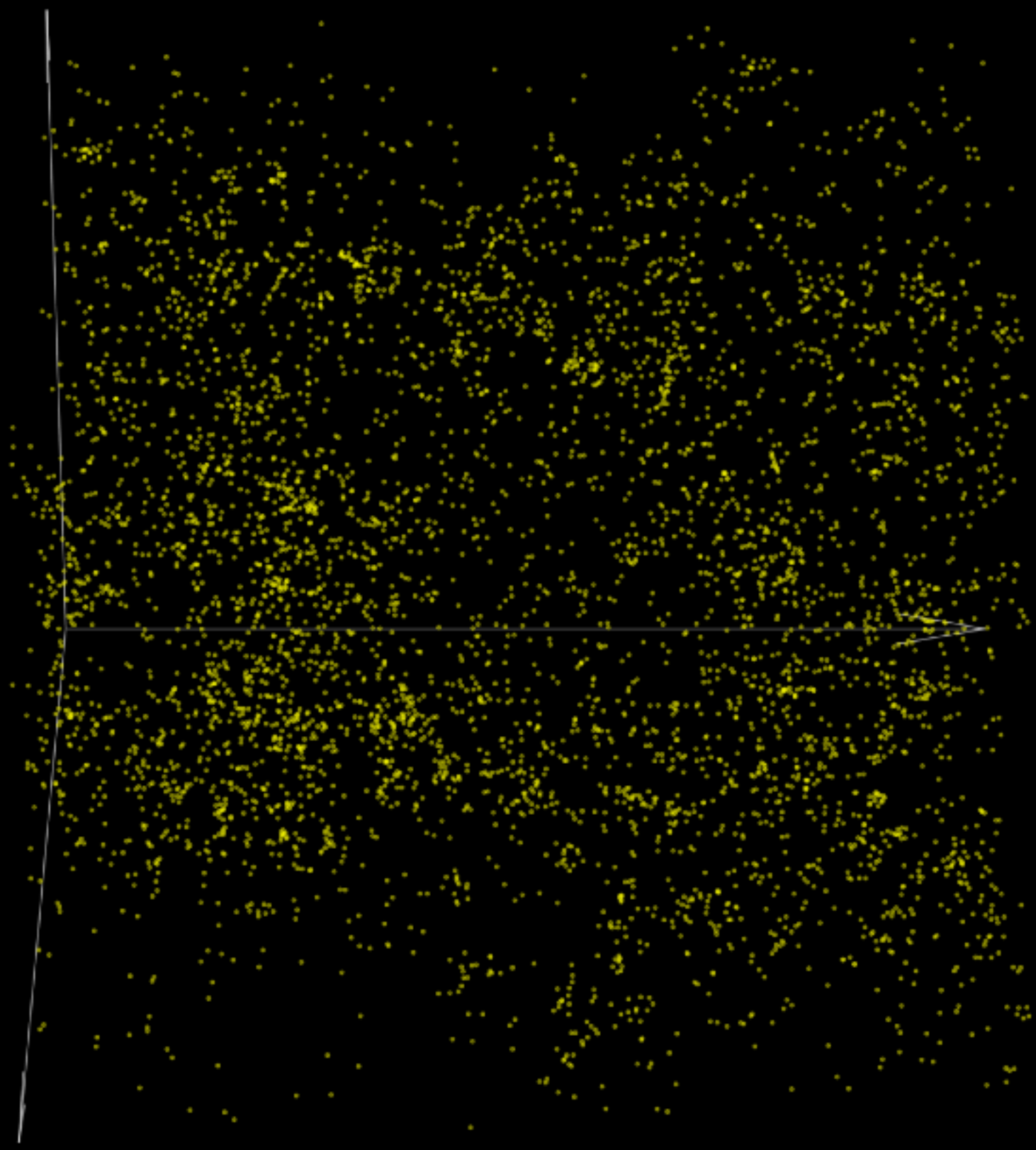
/70

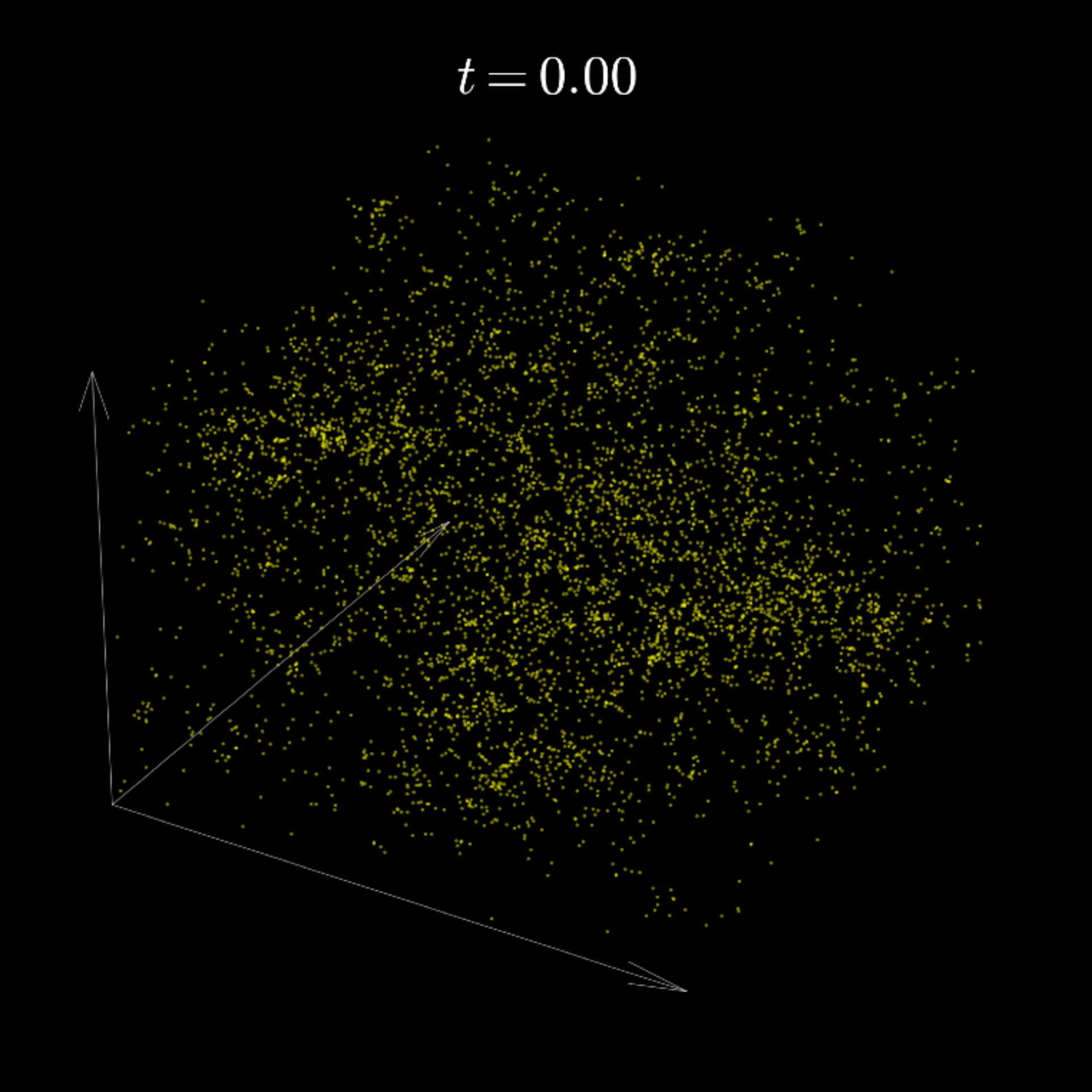
53

Diffusion on galaxies

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

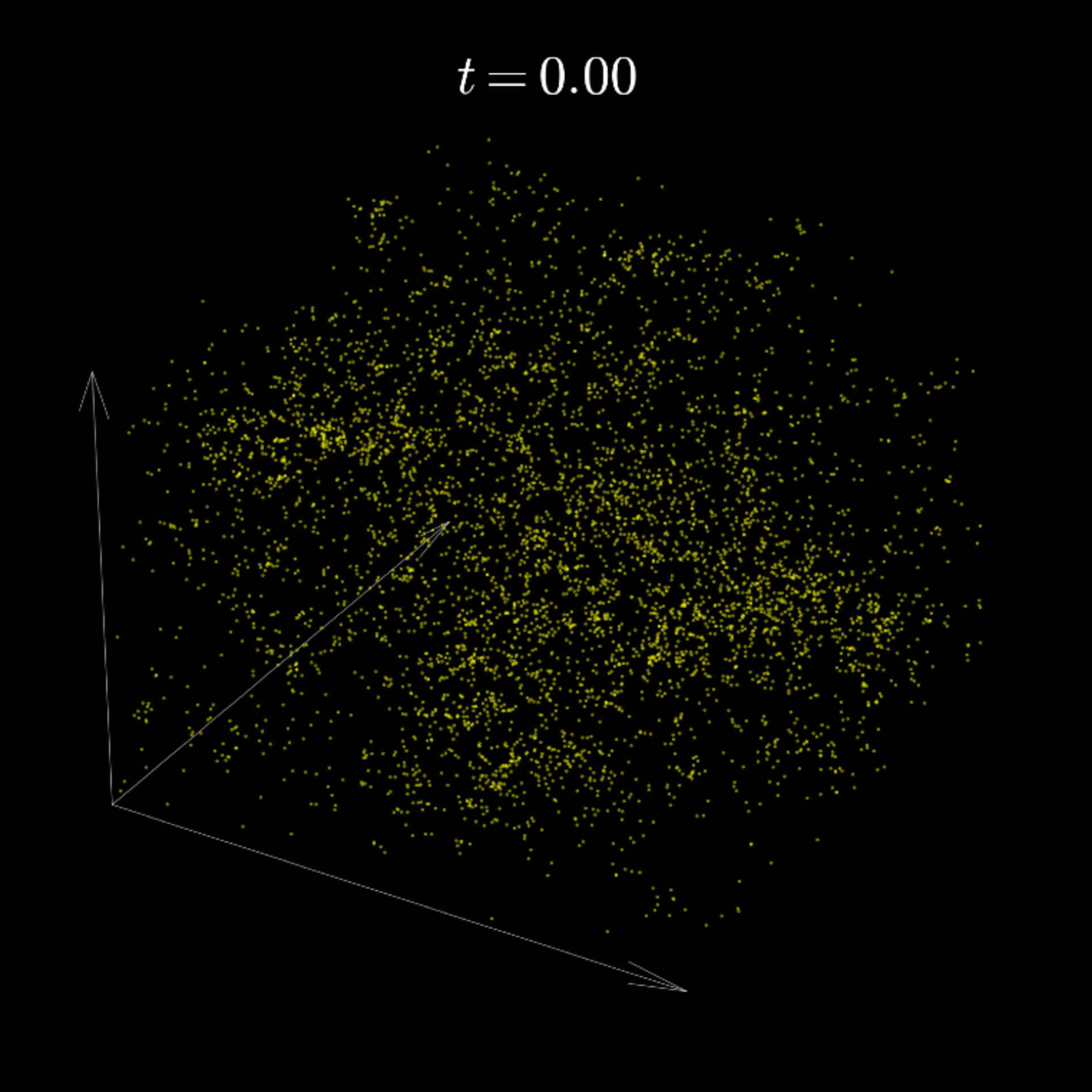


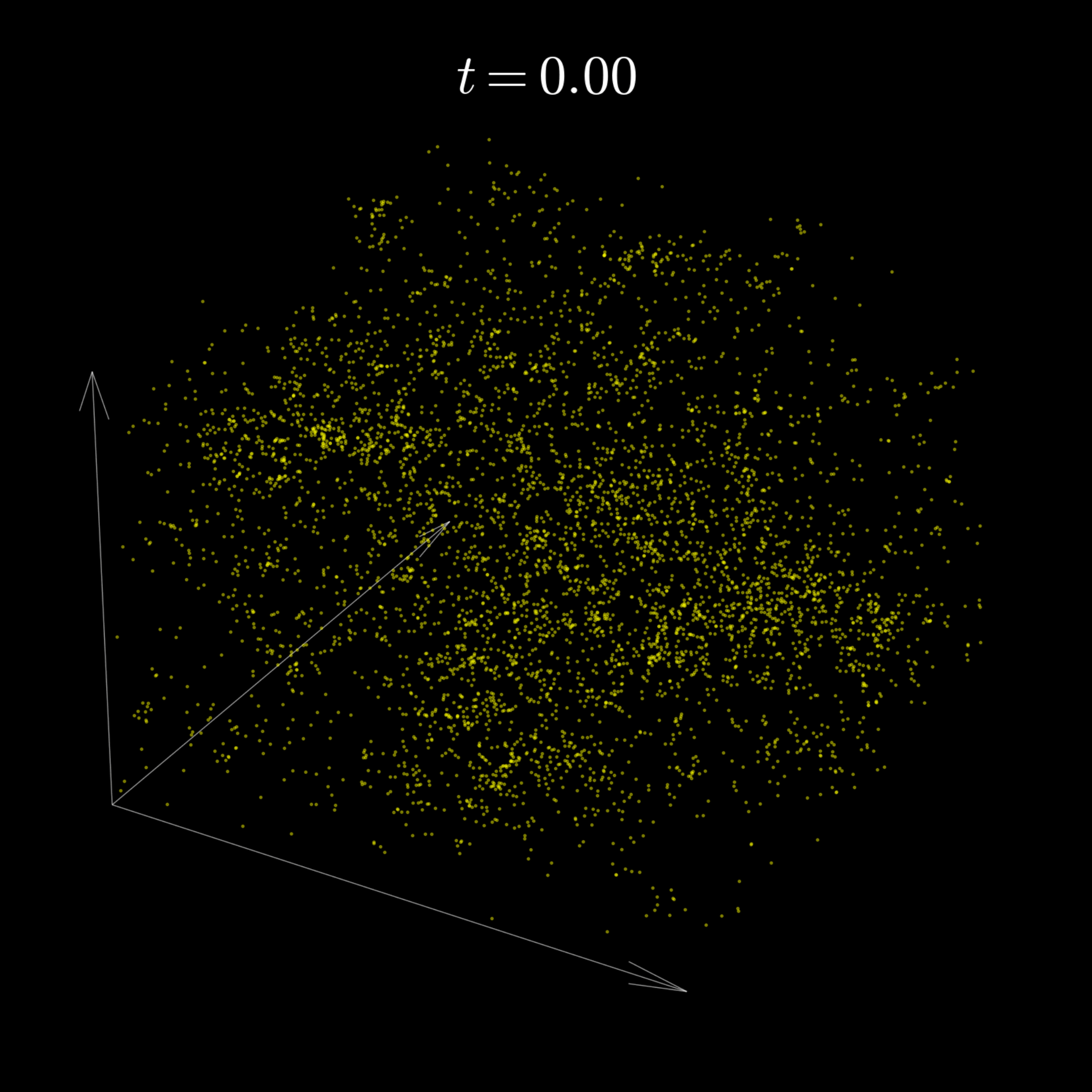
Conditional generation $x \sim p(x \mid \Omega_m, \sigma_8)$


$t = 0.00$

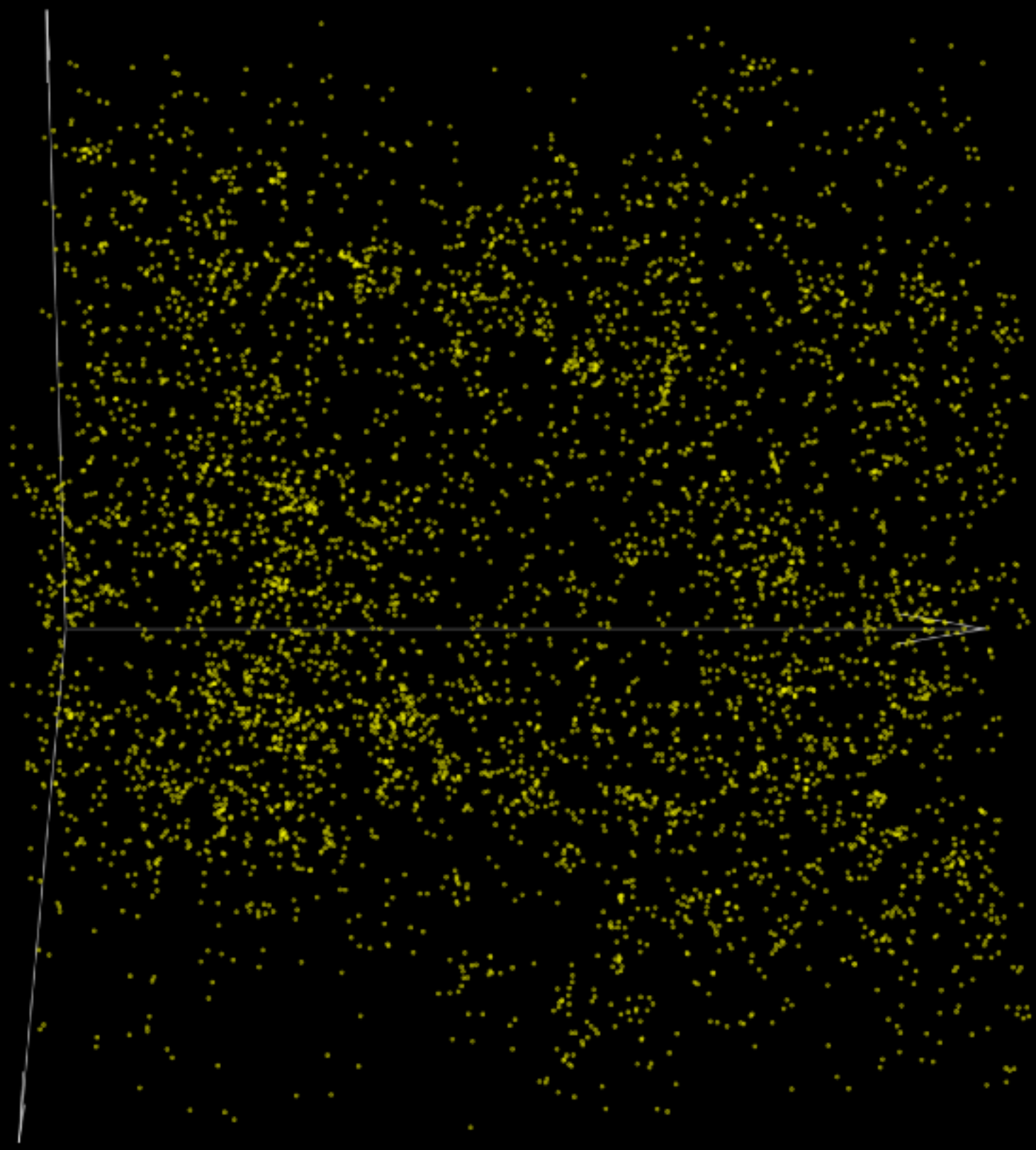
Diffusion process

SM, Cuesta-Lazaro [ICML ML4Astro]

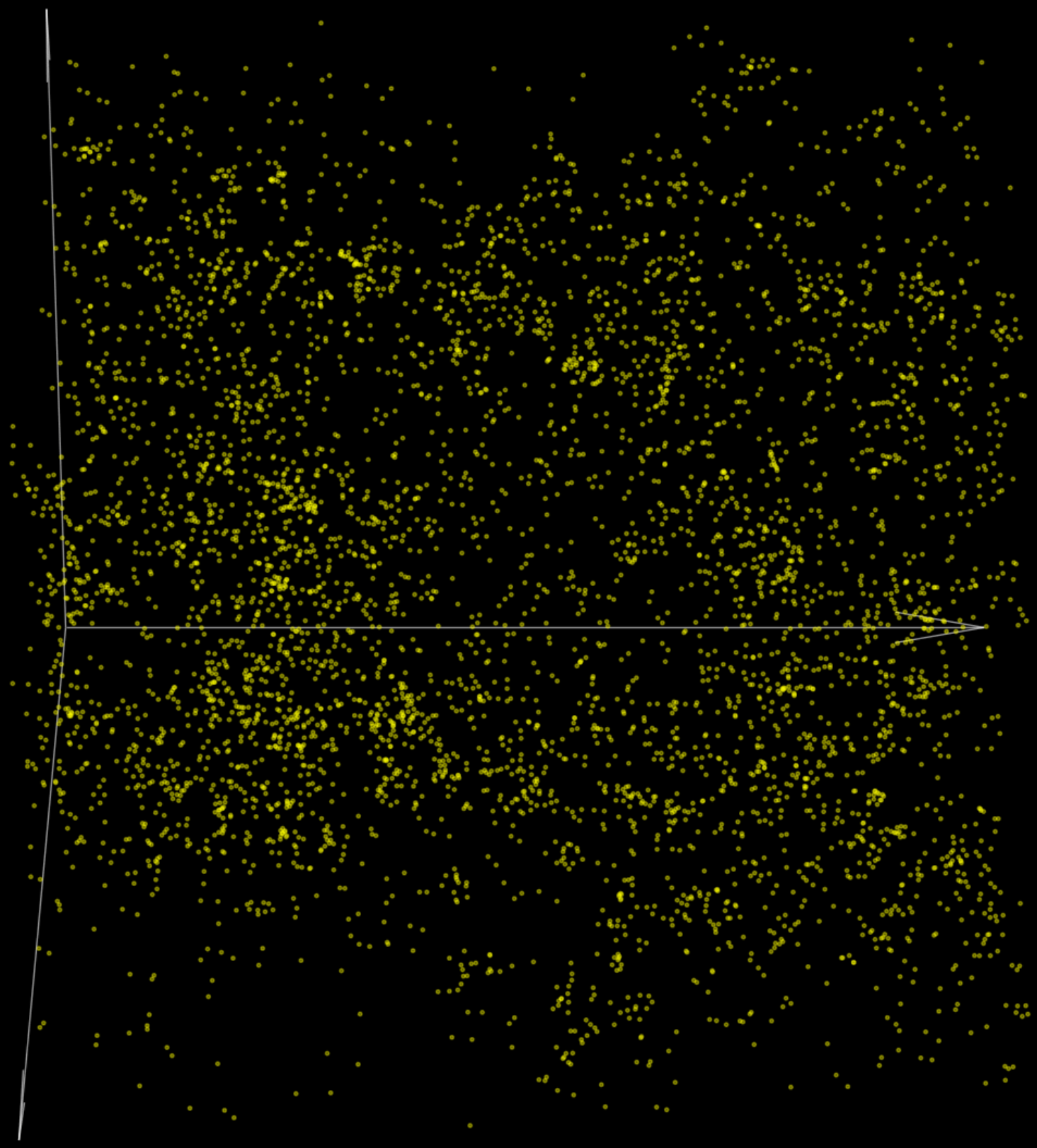

$t = 0.00$


$t = 0.00$

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



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

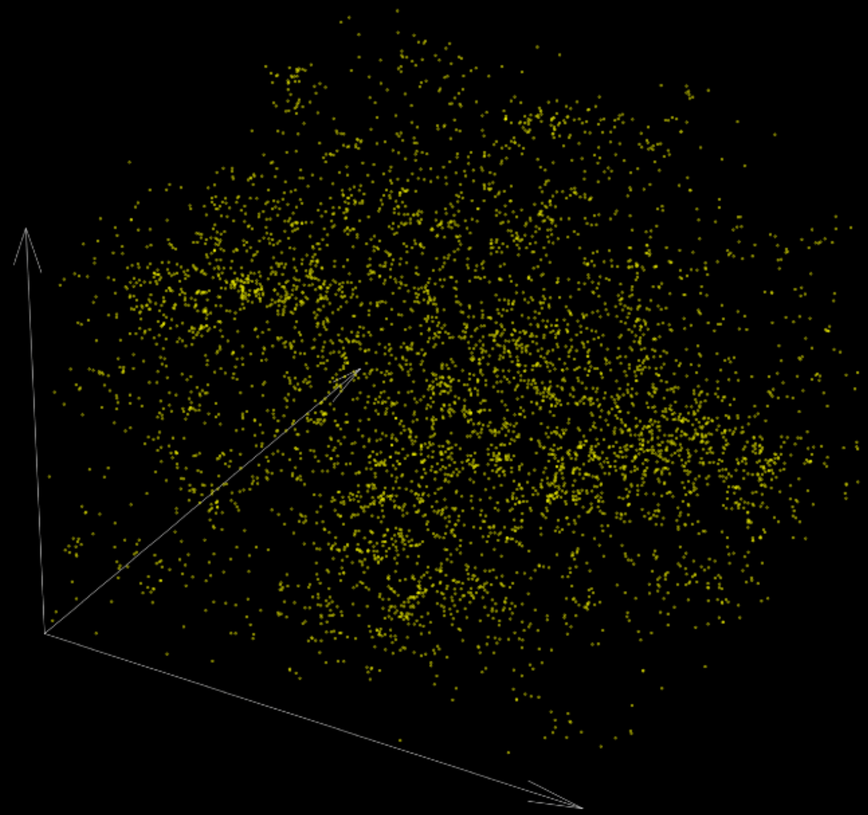


Diffusion on galaxies

SM, Cuesta-Lazaro [ICML ML4Astro]

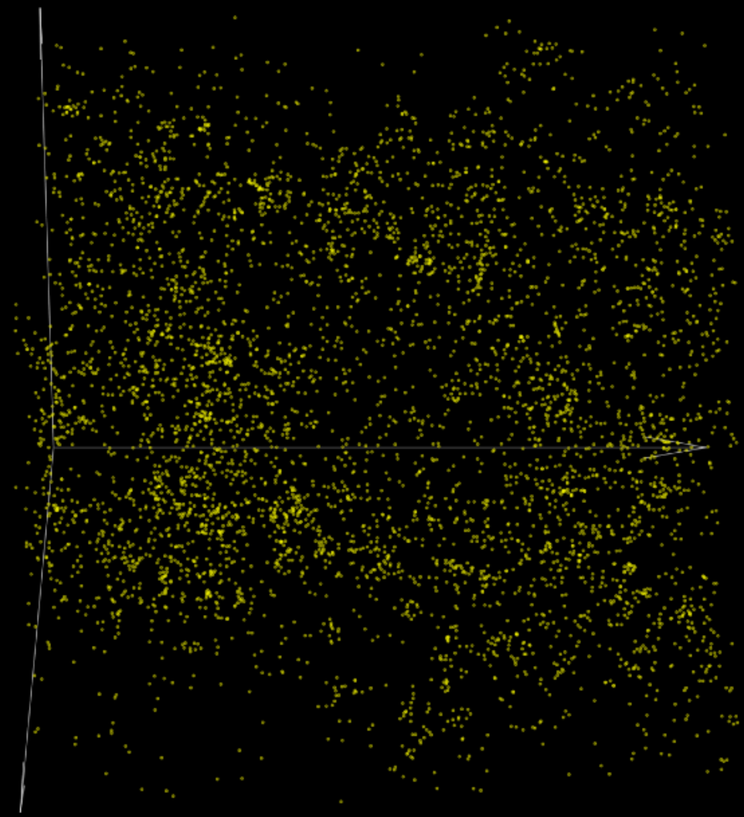
Diffusion process

$t = 0.00$



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