





I N S E A

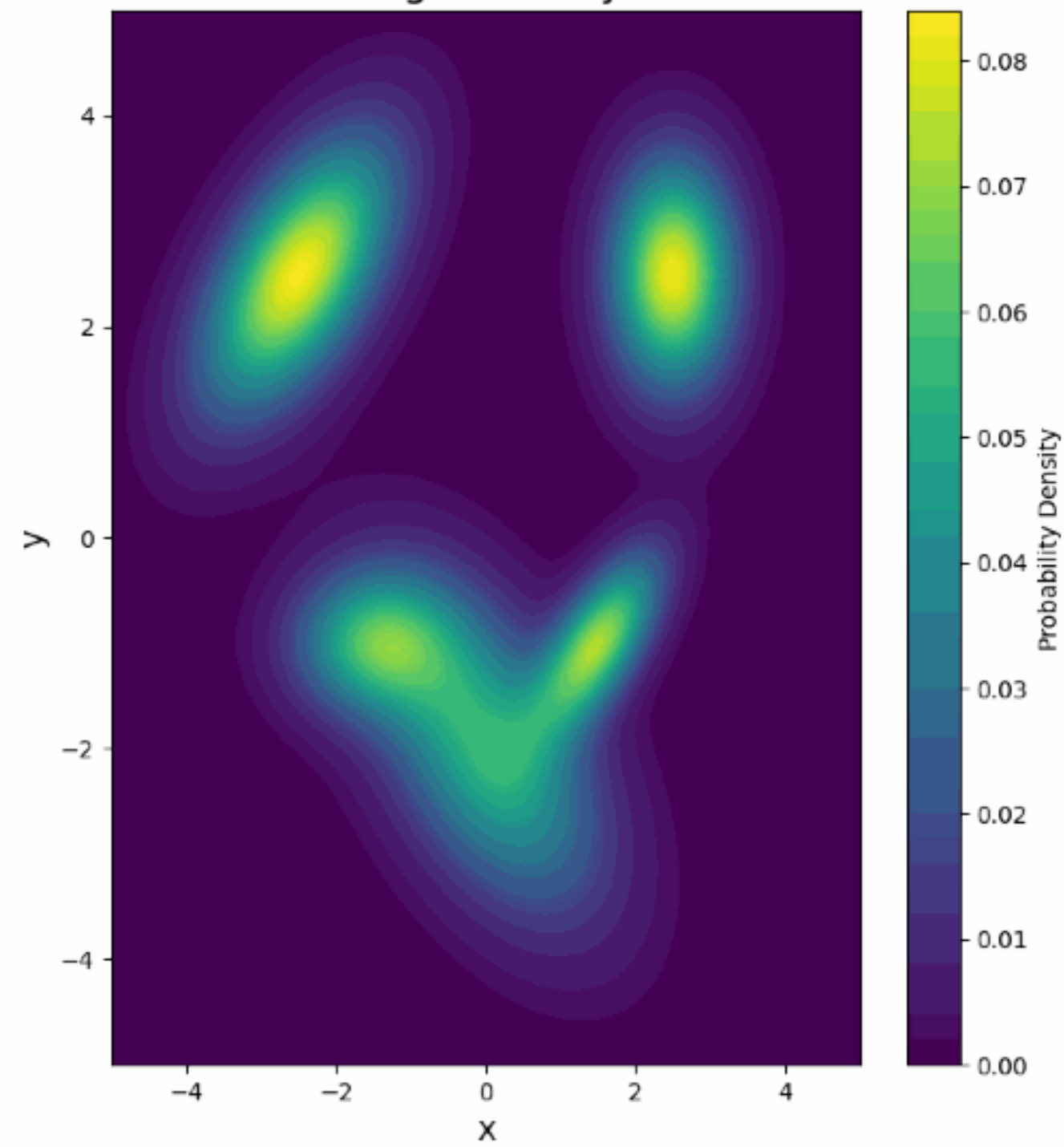




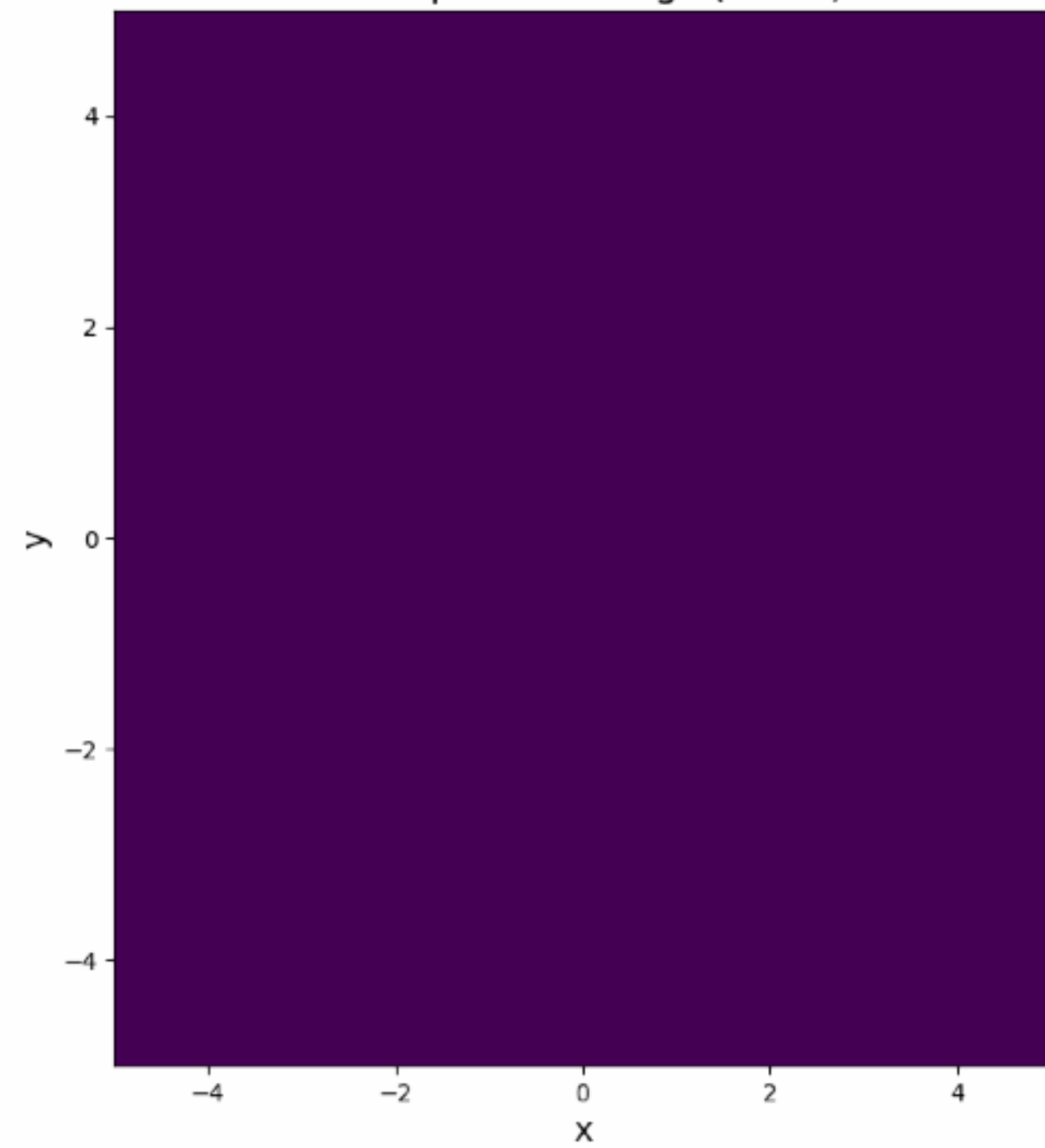


MC MC: algorithmes avancés

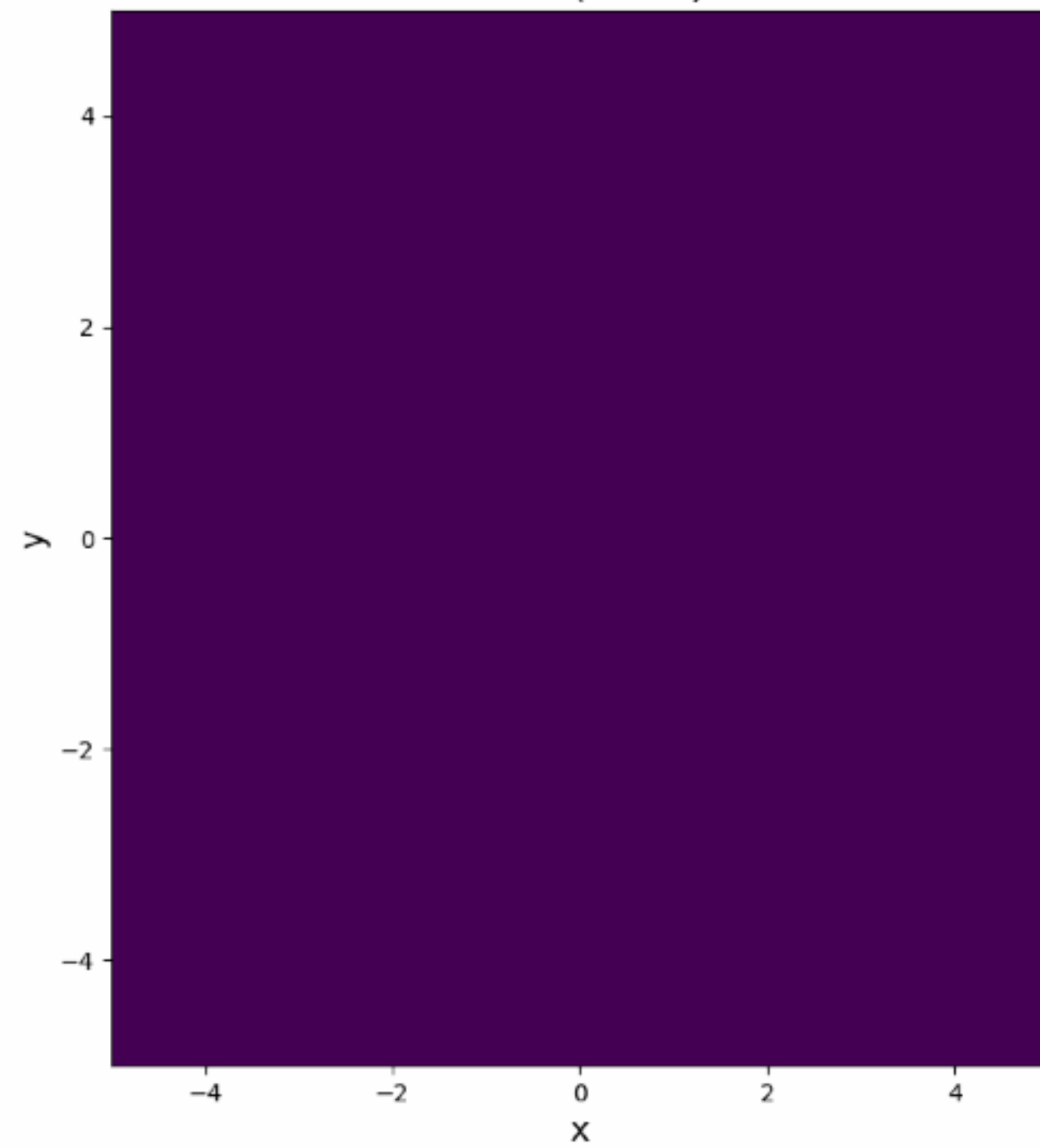
Target Density



Metropolis-Hastings (n=20)



MALA (n=20)



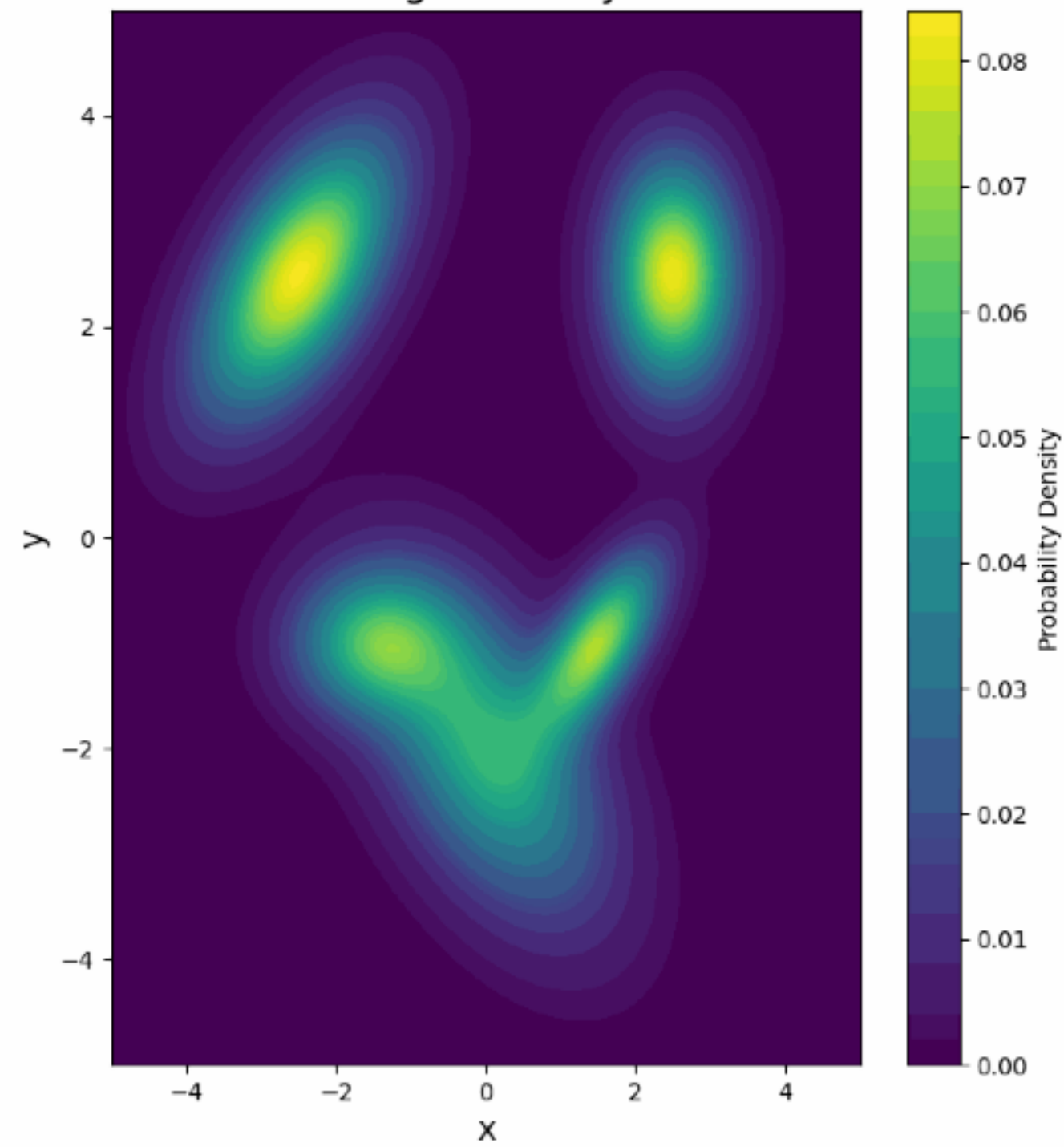
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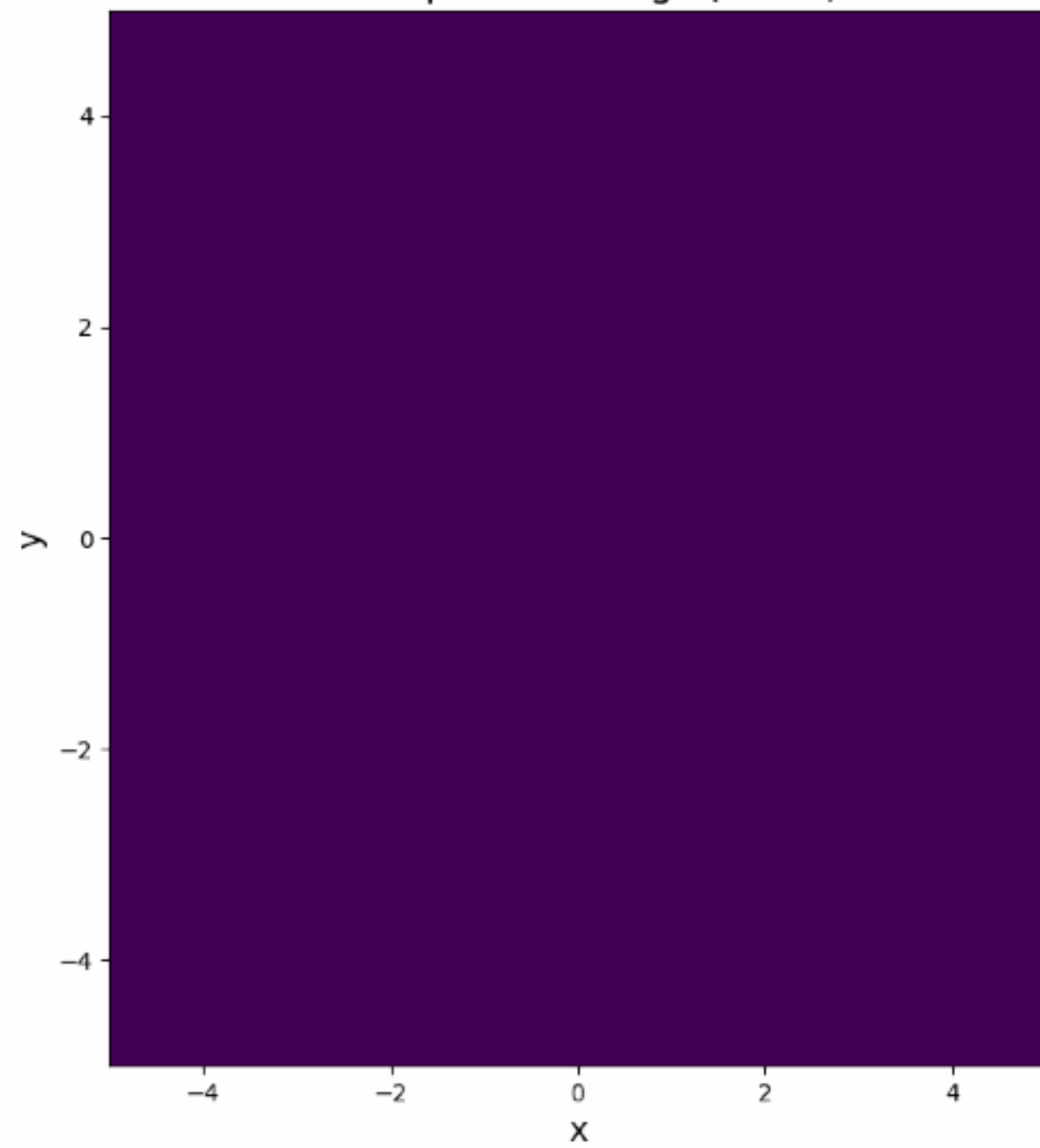
Quand faut-il utiliser MALLA au lieu de Metropolis?

**Metropolis vs MALLA**

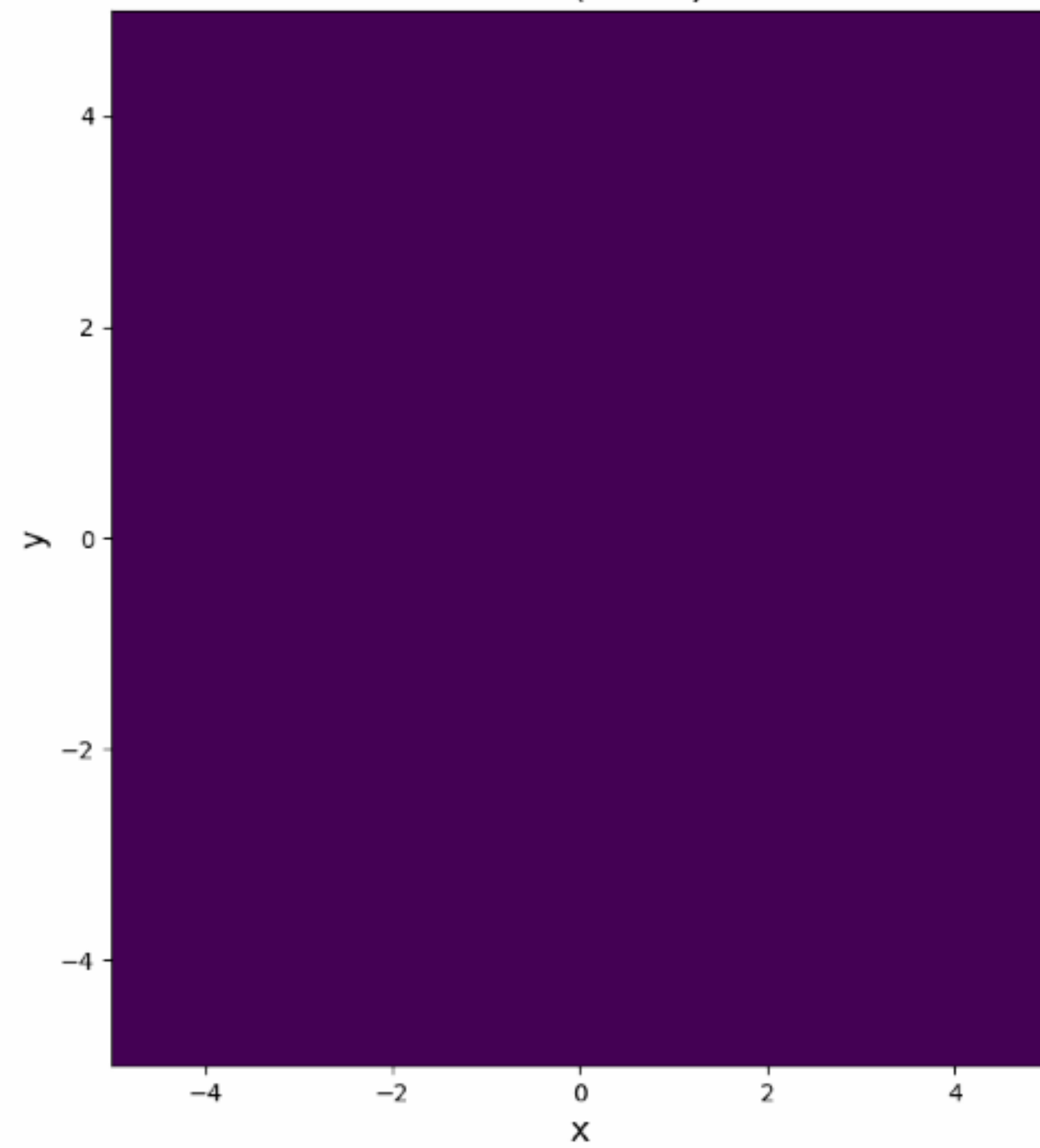
Target Density



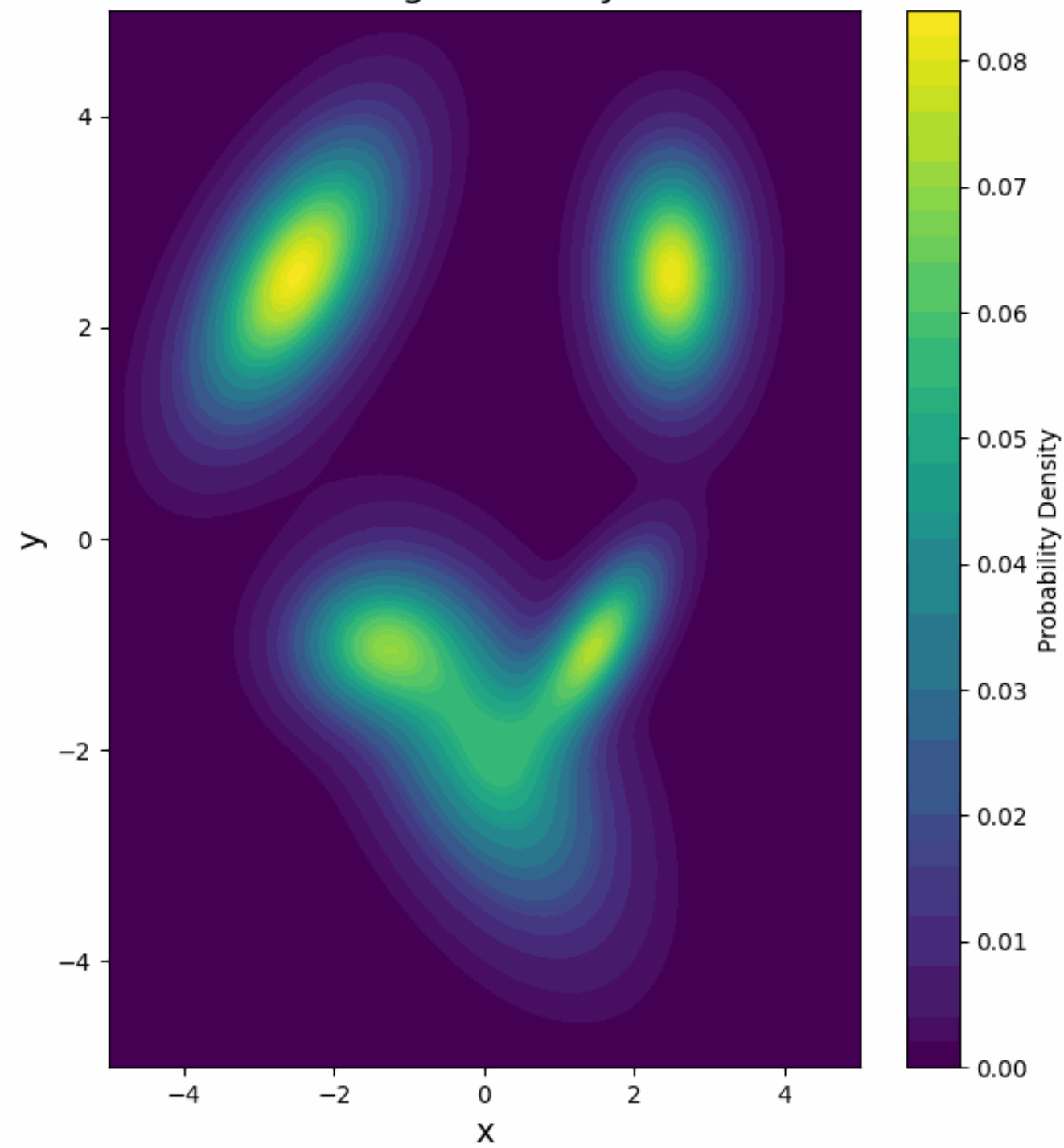
Metropolis-Hastings (n=20)



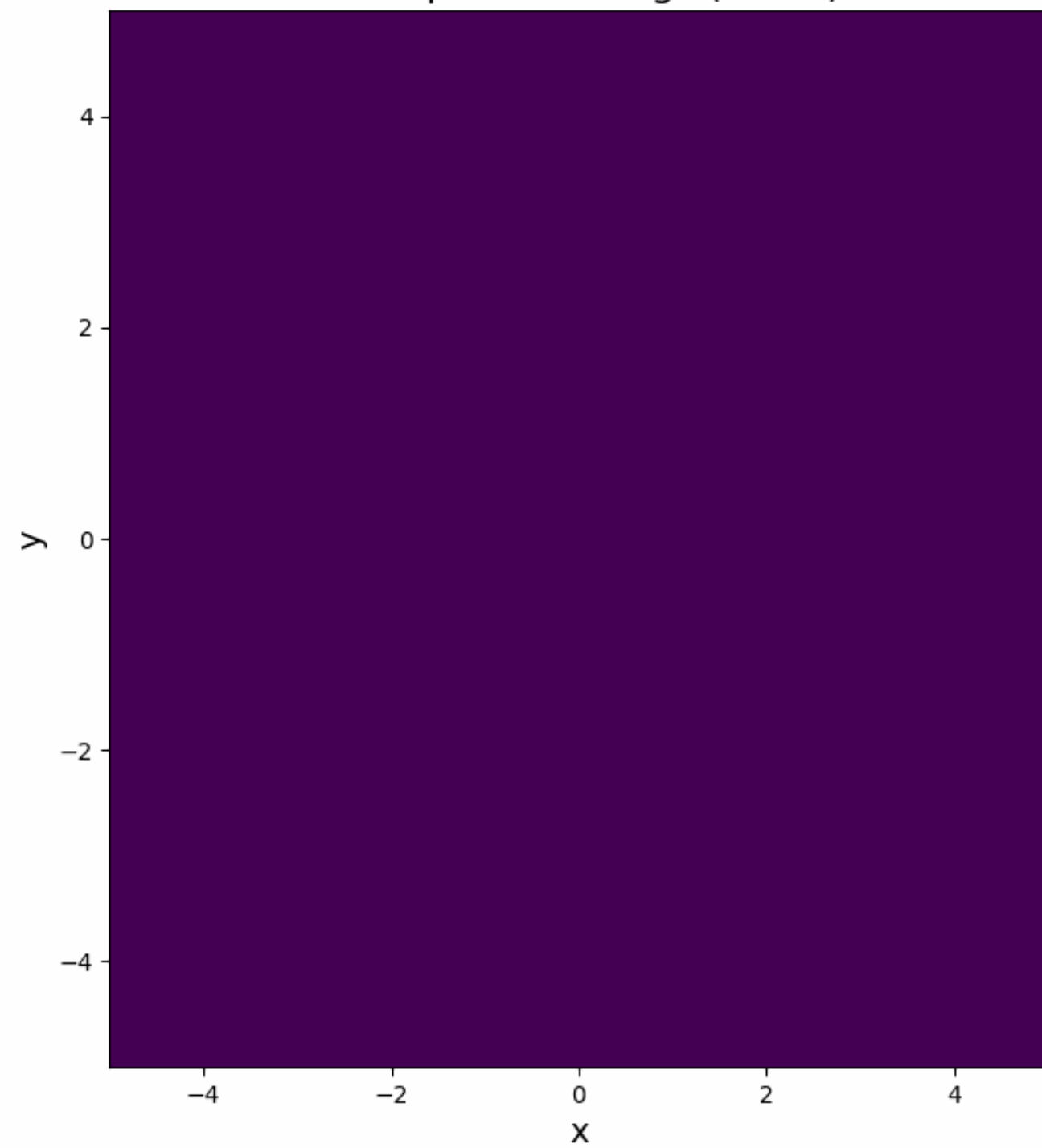
MALA (n=20)



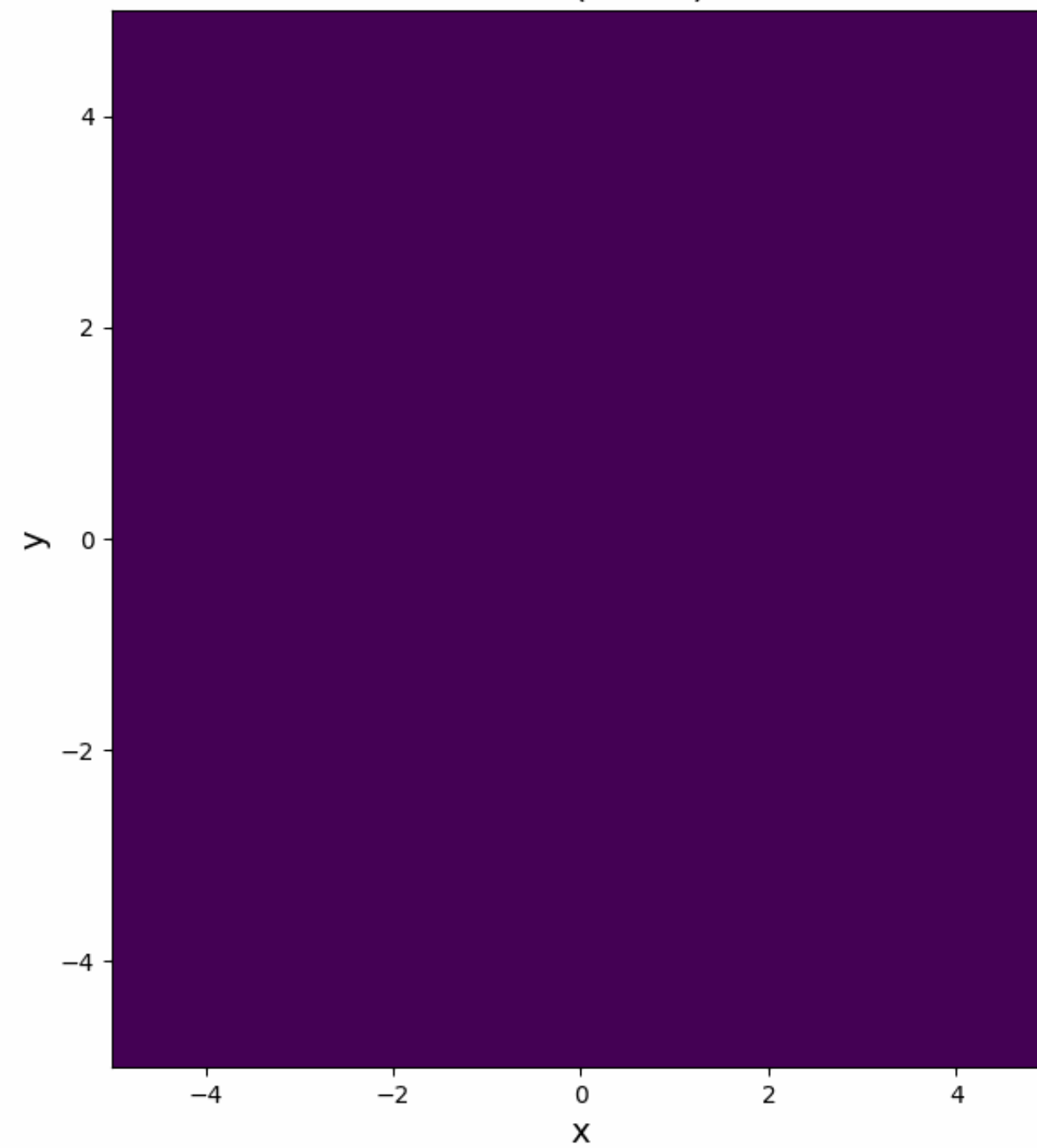
Target Density

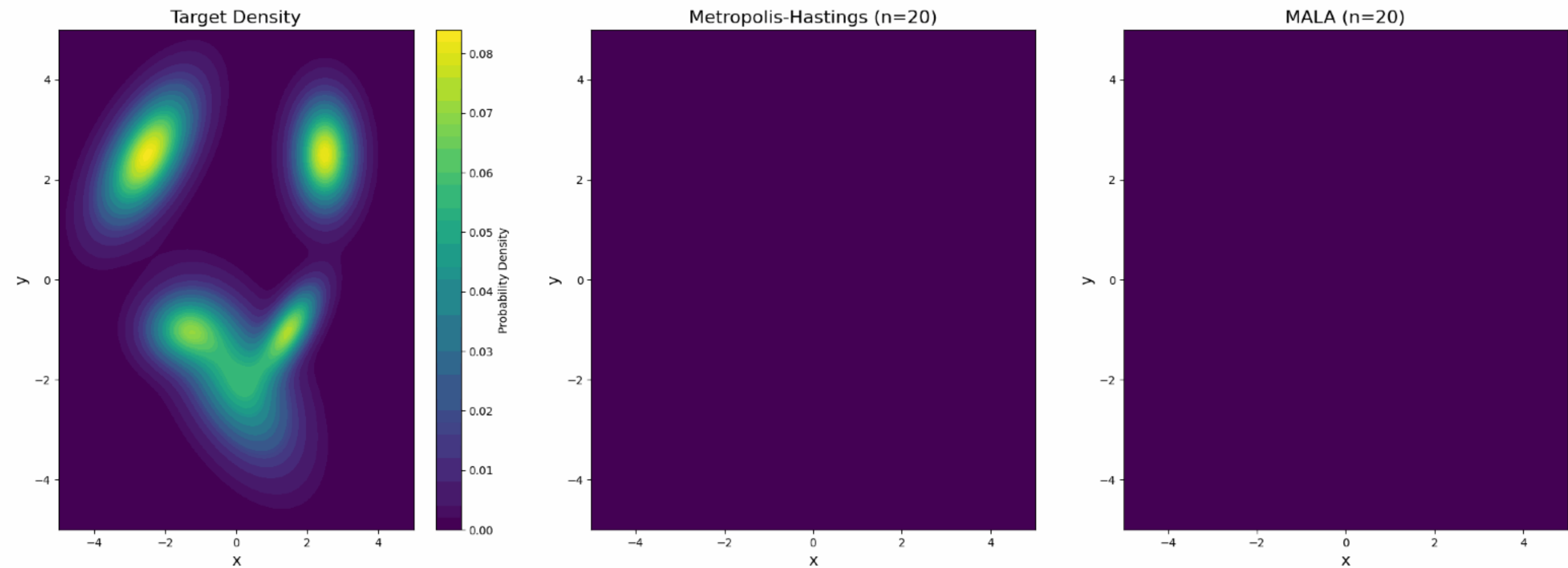


Metropolis-Hastings (n=20)



MALA (n=20)





Quand faut-il utiliser MALA au lieu de Metropolis ?

1. Pourquoi Monte-Carlo ? (Exemple de modèle hiérarchique)
2. Introduction à la méthode Monte-Carlo (historique, PRNG)
3. Algorithmes de simulation i.i.d (PRNG, transformation, rejet)
4. Méthodes MCMC (Gibbs, Metropolis)
5. Diagnostics de convergence MCMC
6. Méthodes MCMC avancées (Langevin, HMC, NUTS)



La densité de Boltzmann donne une intuition très importante

