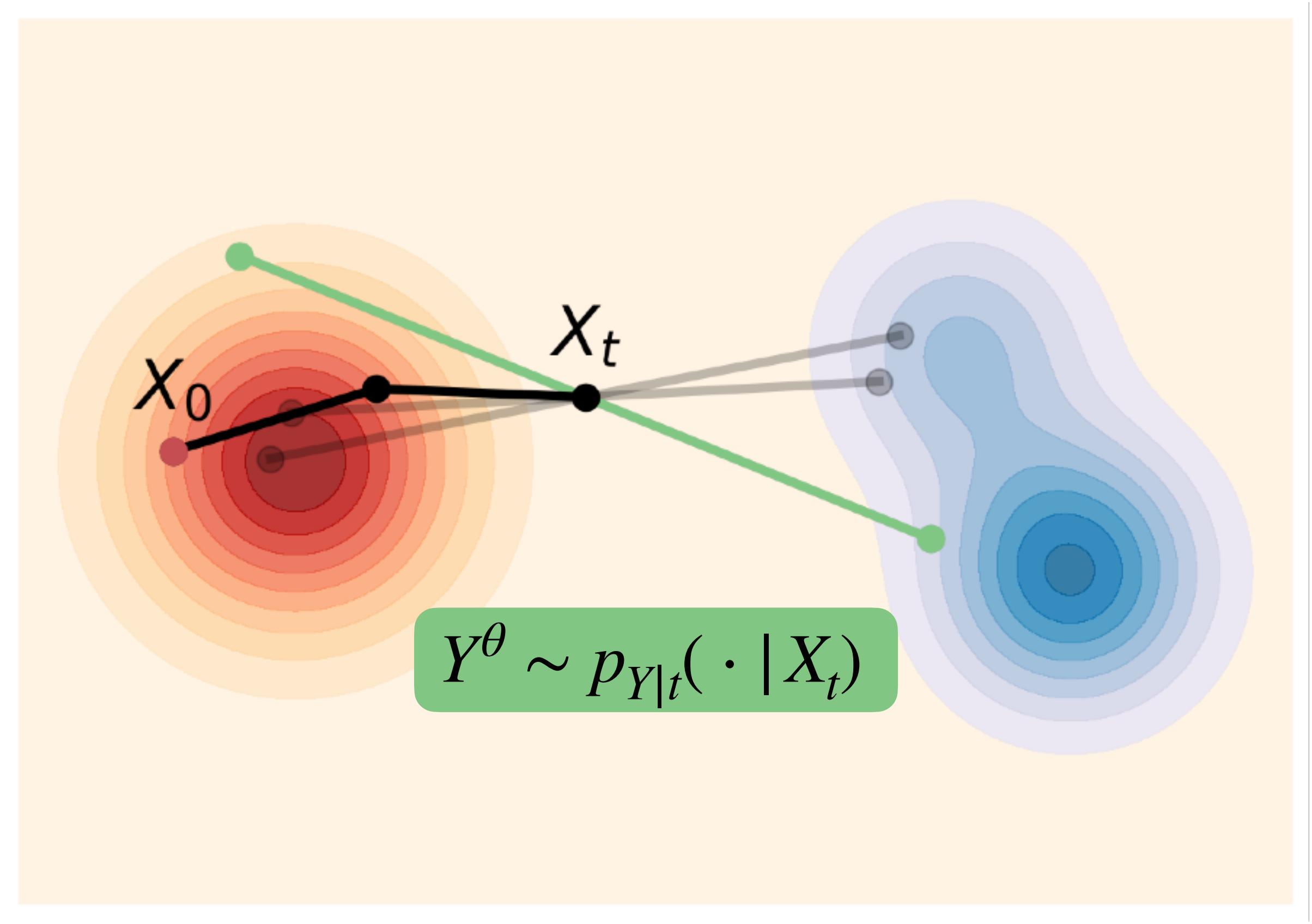


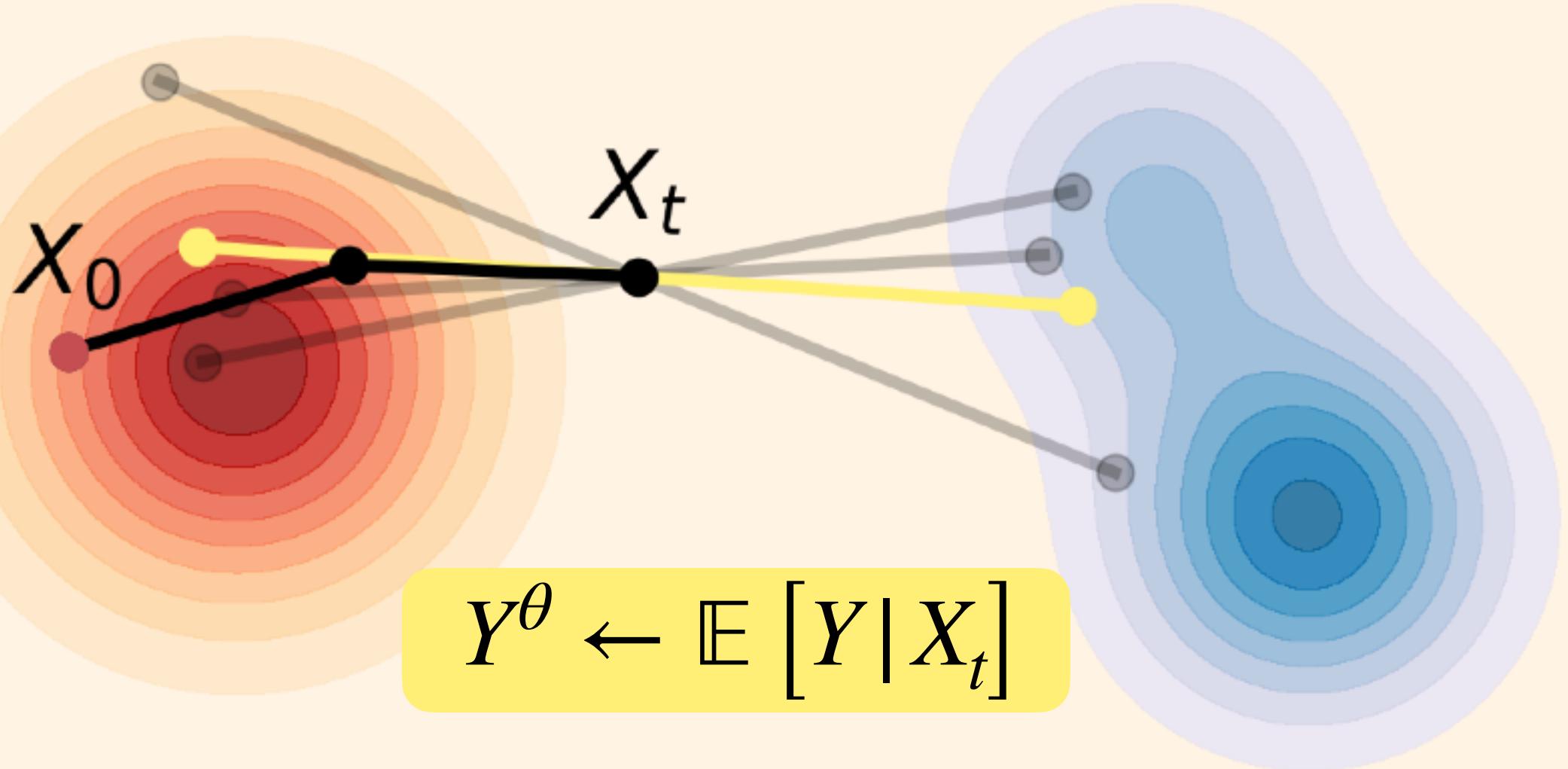
$x_0$

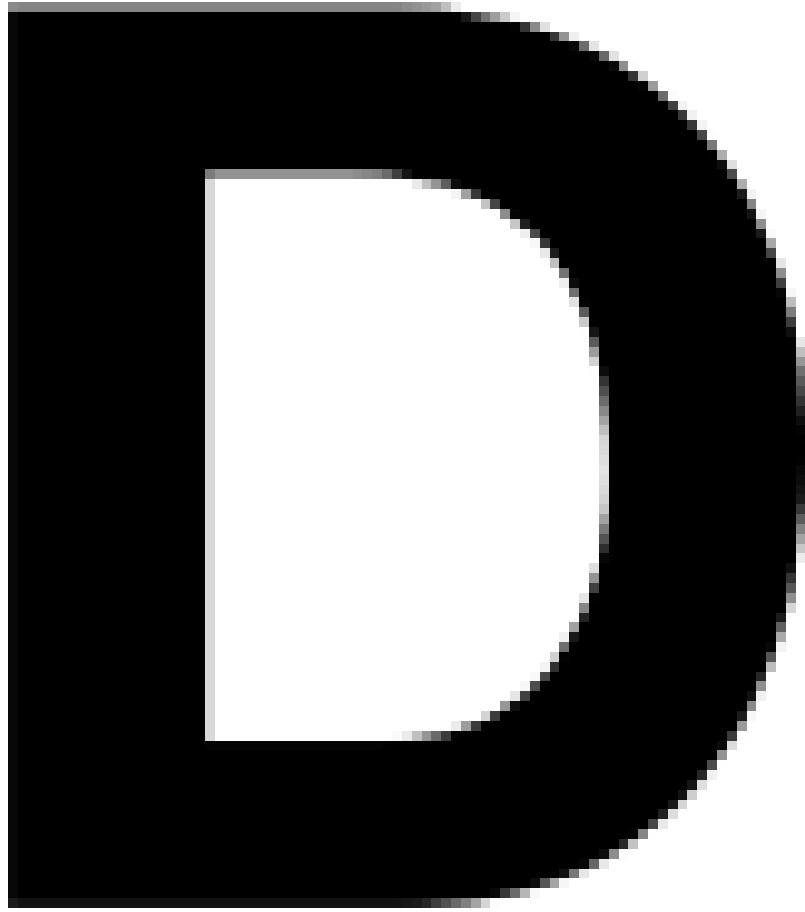
$x_t$

 $x_0$  $x_t$ 

$$Y^\theta \sim p_{Y|t}(\cdot | X_t)$$

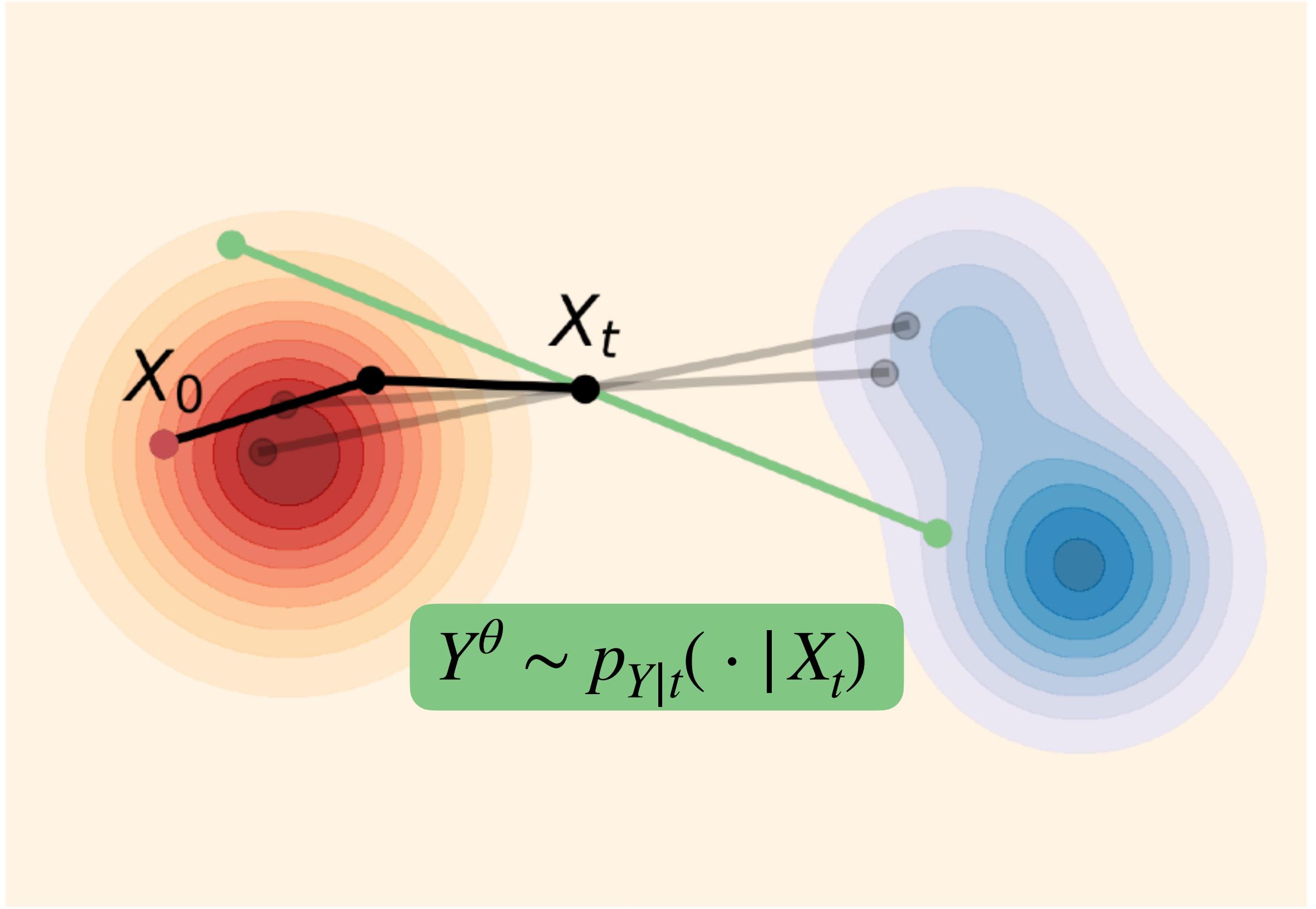
# FM



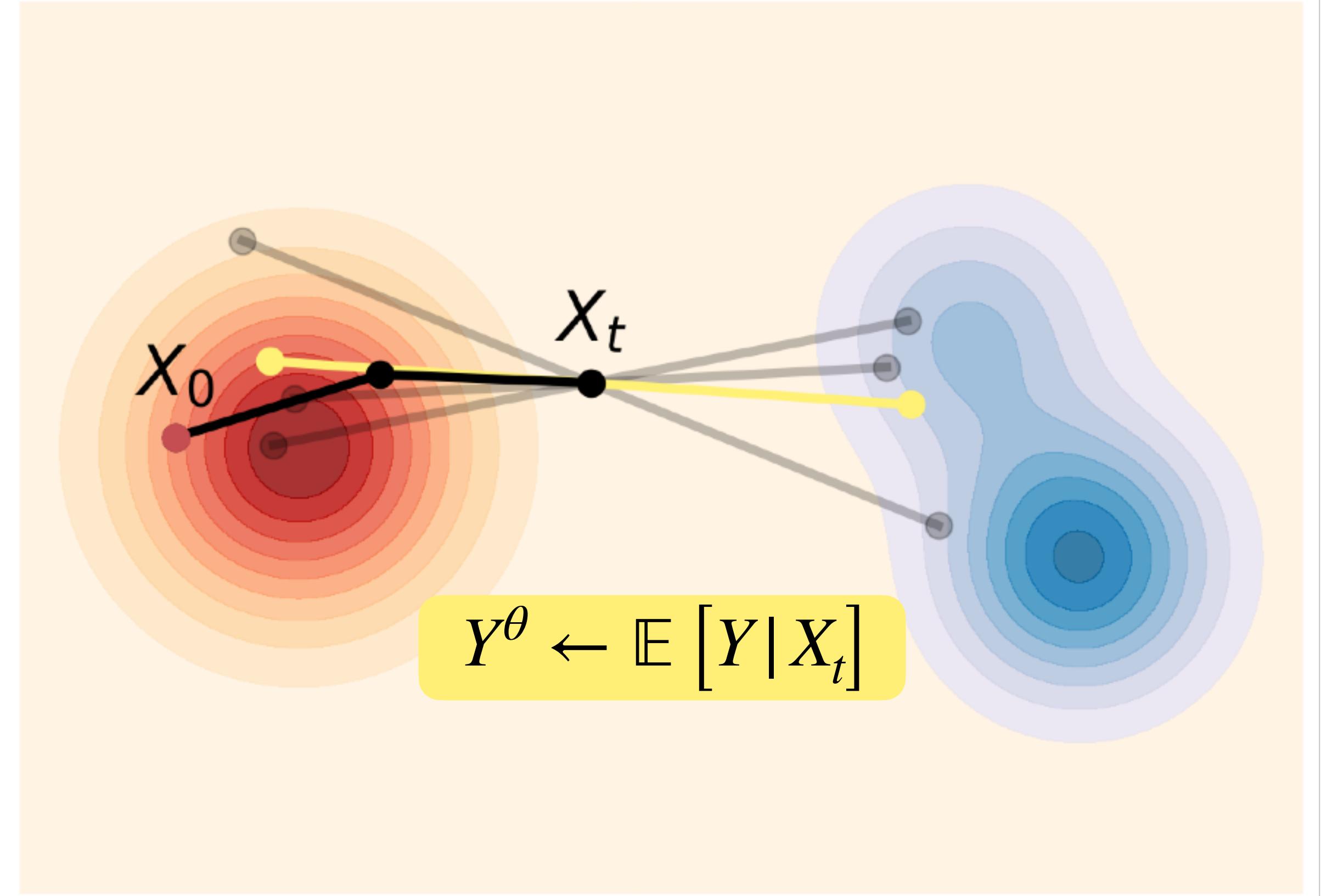


# DTM vs. FM

DTM

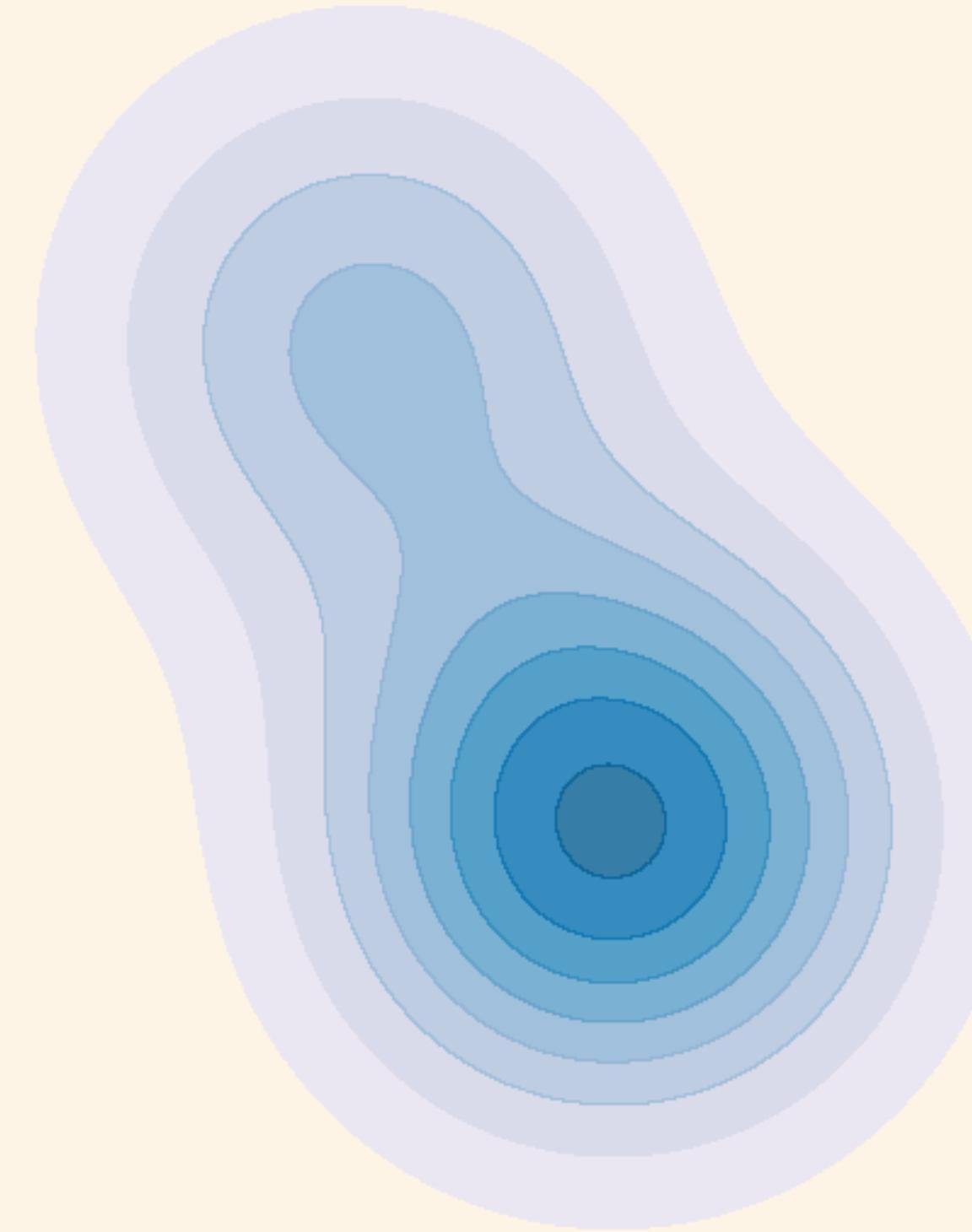
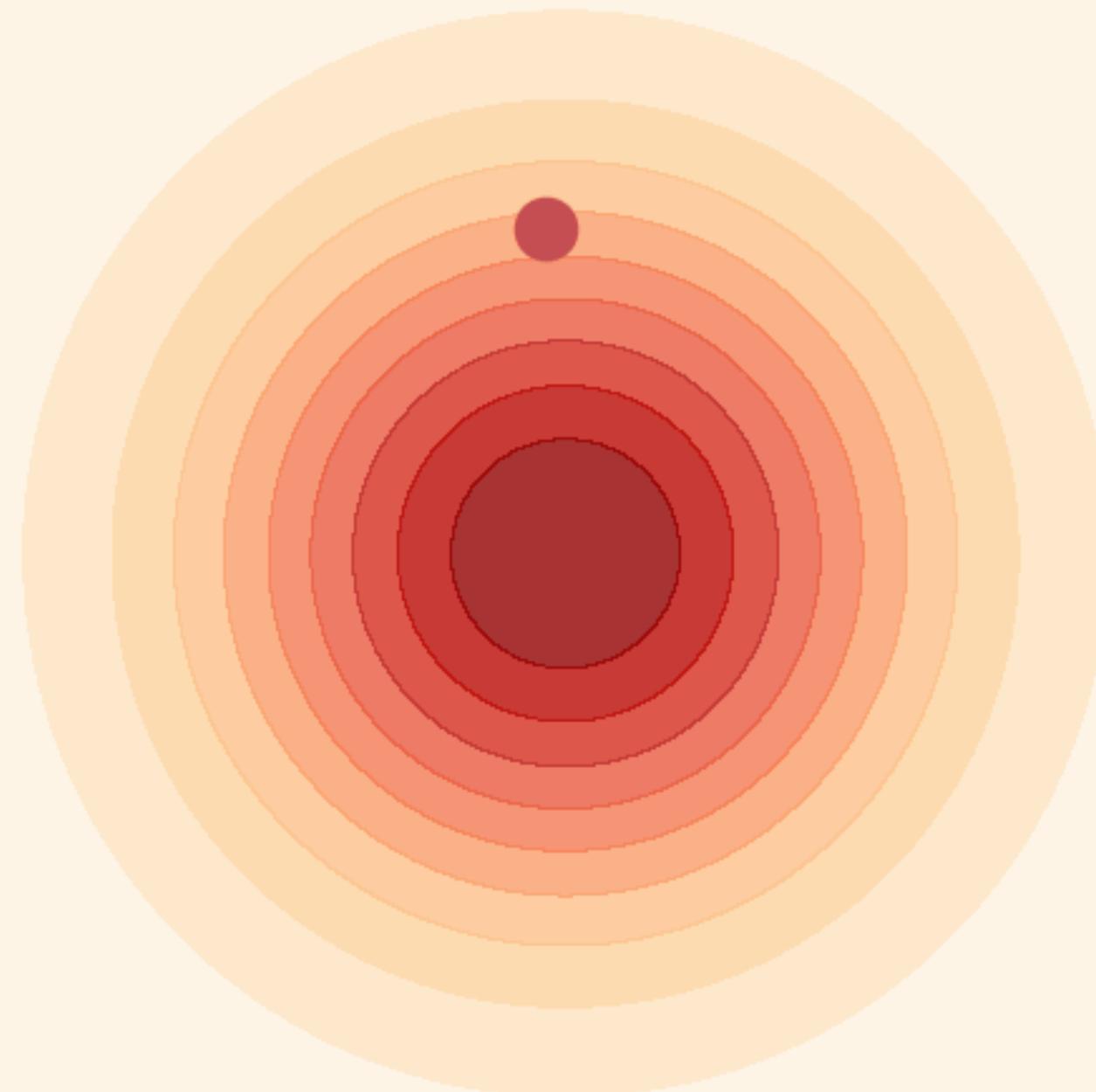


FM



# DTM vs. FM

— DTM: 2-steps  
— FM



**Theorem 1:** (informal) As the number of steps increases,  $T \rightarrow \infty$ , DTM converges to Euler step FM. Given a state  $X_t = x_t$ ,

$$X_{t+k} \approx x_t + \frac{k}{T} \mathbb{E} [X_T - X_0 | X_t = x_t], \quad \text{as } k/T \rightarrow 0, k \rightarrow \infty.$$