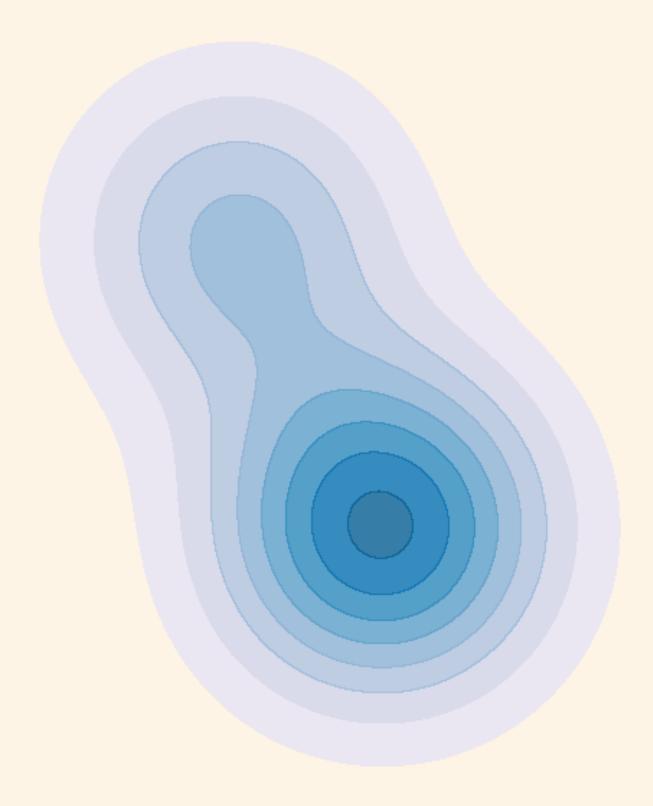


DTM: 2-steps

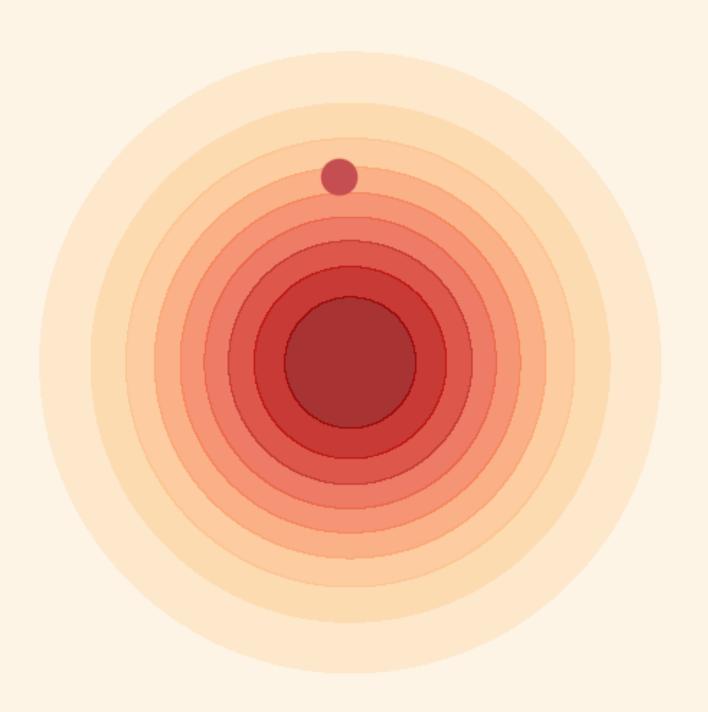
— FM



DTM vs. FM

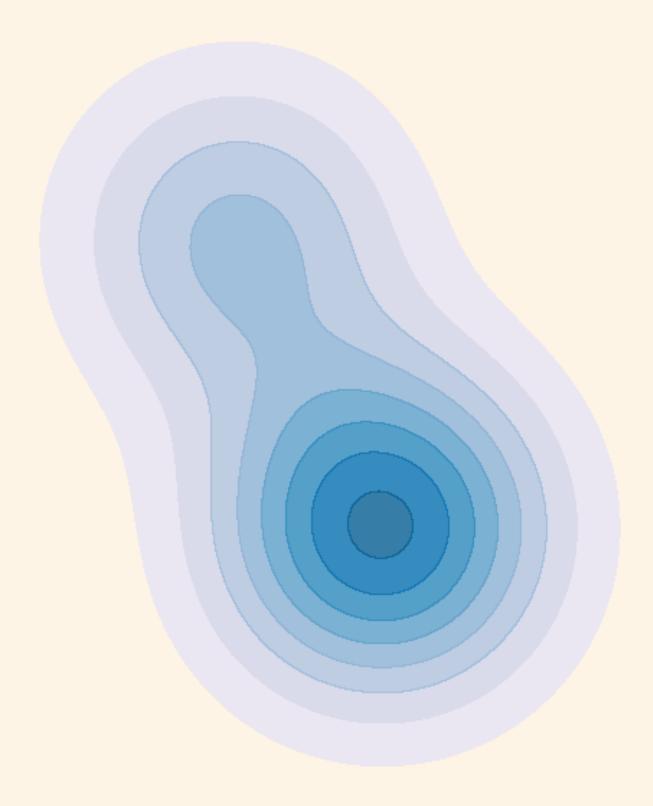
to Euler step FM. Given a state
$$X_t=x_t$$
,
$$X_{t+k}\approx x_t+\frac{k}{T}\mathbb{E}\left[X_T-X_0\,|\,X_t=x_t\right],\quad\text{as }k/T\to0,\;k\to\infty.$$

Theorem 1: (informal) As the number of steps increases, $T \to \infty$, DTM converges

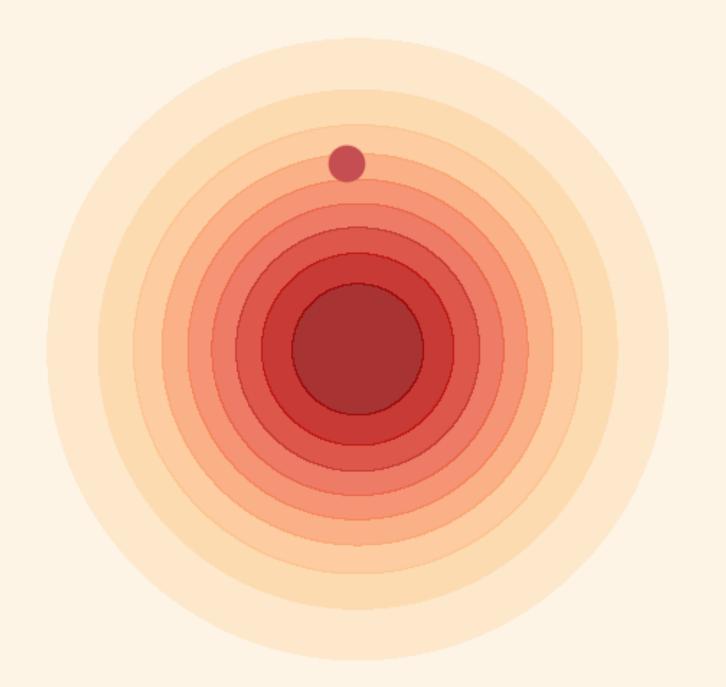


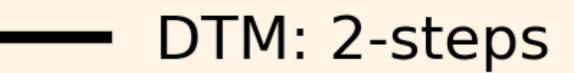
DTM: 2-steps

— FM

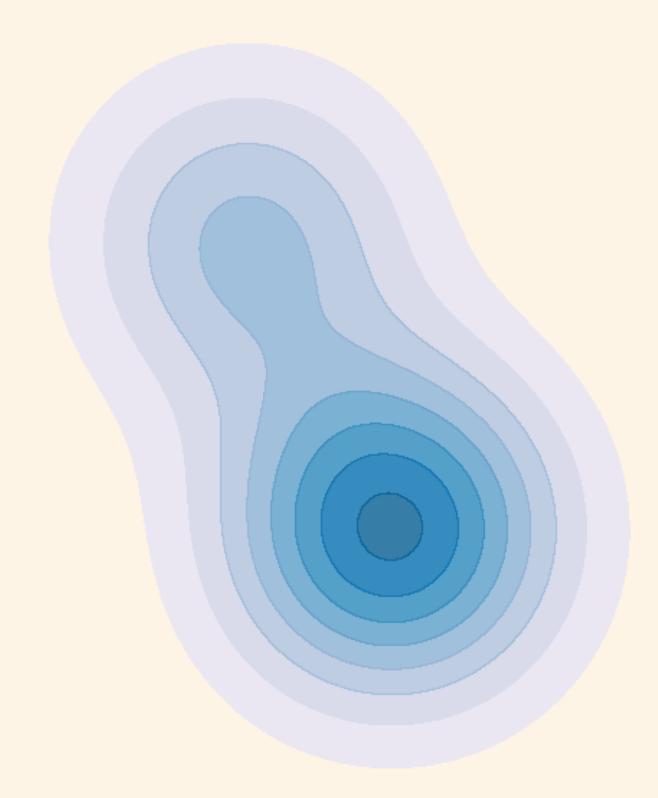


DTM vs. FM





— FM



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

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

TM Variants

Can we come up additional interesting design choices?