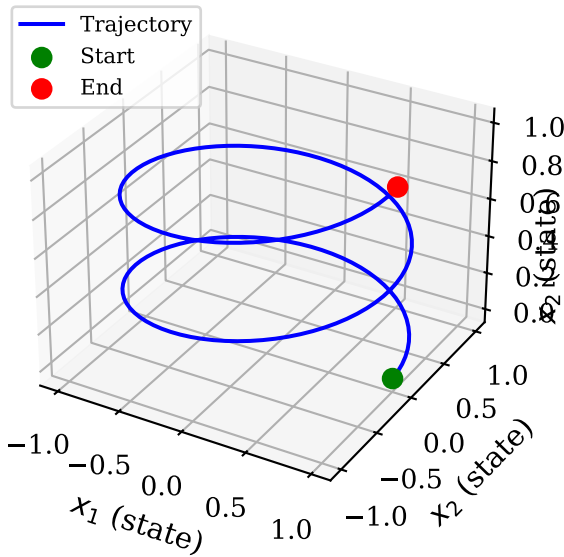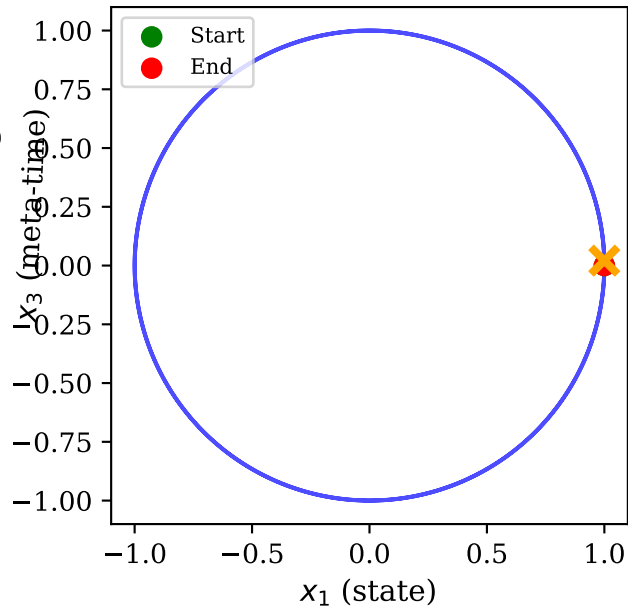(A) $k = 3$: Collision-free

(B) $k = 2$: Collisions (orange X)

(C) Collisions vs. dimension

Legend (A): Trajectory, Start, End

Legend (B): Start, End

Axis labels (A): x_1 (state), x_2 (state), x_3 (meta-time)

Axis labels (B): x_1 (state), x_3 (meta-time)

Axis labels (C): Embedding dimension k, Collision count

$k_{\min} = 3$