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Nonlinear Dynamics: Mathematical and Computational Approaches
Lead instructor: ✉ Liz Bradley

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✓ 8.2 Delay-coordinate embedding » Quiz   ← Prev   Next →

Quiz scores are NOT recorded.
- You may come back to quizzes and take them as many times as you like
- When you are finished, clicking the "Score" button at the bottom of the test will show you the correct responses.

Question 1
In the delay-coordinate embedding process, the time-delay parameter τ dictates how many teeth are in the data comb.

- ○ A. True
- ✔ ● B. False

Question 2
In the delay-coordinate embedding process, the embedding dimension parameter m dictates how many coordinates are present in each delay vector.

- ○ **A. True**
- ✘ ● B. False

Question 3
All projections of a dynamical system can be undone perfectly with delay-coordinate embedding.

- ○ A. True
- ✔ ● B. False

Question 4
For delay-coordinate embedding to work, the observation function h that produces the time-series data must be a continuous function on the state space.

- ✘ ● A. True
- ○ **B. False**

Question 5
Since $\tau \to 0$ satisfies the theoretical requirements of the Takens theorem, any choice of τ will result in an embedded attractor that looks the same as the original dynamics.

- ○ A. True
- ✔ ● B. False

Question 6
In practice, any $\tau \to 0$ is as good as the next -- i.e., any $\tau \to 0$ will provide a correct, equally complicated and equally useful embedding.

- ○ A. True
- ✔ ● B. False

You got **4** out of **6** questions correct   Reset

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