import matplotlib.pyplot as plt

# Extract Dream 3 and Dream 4 data

dream3 = results[2]

dream4 = results[3]

# Set up subplots for side-by-side comparison

fig, axs = plt.subplots(2, 2, figsize=(12, 8))

fig.suptitle("Visualization of Dream 3 and Dream 4")

# Dream 3 Plots

axs[0, 0].plot(dream3["quantum"], label='Quantum Input', marker='o')

axs[0, 0].plot(dream3["dream\_q"], label='Dream Q (sin)', marker='x')

axs[0, 0].set\_title("Dream 3: Quantum vs Dream Q")

axs[0, 0].legend()

axs[0, 0].grid(True)

axs[1, 0].plot(dream3["chaos"], label='Chaos Input', marker='o')

axs[1, 0].plot(dream3["dream\_c"], label='Dream C (cos)', marker='x')

axs[1, 0].set\_title("Dream 3: Chaos vs Dream C")

axs[1, 0].legend()

axs[1, 0].grid(True)

# Dream 4 Plots

axs[0, 1].plot(dream4["quantum"], label='Quantum Input', marker='o')

axs[0, 1].plot(dream4["dream\_q"], label='Dream Q (sin)', marker='x')

axs[0, 1].set\_title("Dream 4: Quantum vs Dream Q")

axs[0, 1].legend()

axs[0, 1].grid(True)

axs[1, 1].plot(dream4["chaos"], label='Chaos Input', marker='o')

axs[1, 1].plot(dream4["dream\_c"], label='Dream C (cos)', marker='x')

axs[1, 1].set\_title("Dream 4: Chaos vs Dream C")

axs[1, 1].legend()

axs[1, 1].grid(True)

plt.tight\_layout(rect=[0, 0.03, 1, 0.95])

plt.show()