

The figure displays a series of 10 curves, labeled 0 through 9, representing the probability distribution $P(x)$ for different values of the parameter α . The x-axis ranges from 0.0 to 1.0, and the y-axis represents the probability $P(x)$. Curve 0 is a simple, smooth, bell-shaped curve centered at $x = 0.5$. As α increases, the distribution becomes increasingly complex, with multiple peaks and valleys appearing, indicating a transition from a single state to a more complex, possibly chaotic, state. The curves are color-coded: 0 (blue), 1 (orange), 2 (green), 3 (red), 4 (purple), 5 (brown), 6 (pink), 7 (grey), 8 (olive), and 9 (cyan).

Time (s)