

The graph displays the time evolution of the entanglement entropy  $S_E(t)$  for different system sizes  $N$ . The x-axis represents time in epochs (EpSec) from 0 to 1400, and the y-axis represents  $S_E(t)$  from 0 to 10. The lines are color-coded by  $N$ :  $N=2$  (blue),  $N=3$  (green),  $N=4$  (cyan),  $N=5$  (orange),  $N=6$  (red),  $N=7$  (pink),  $N=8$  (grey),  $N=9$  (brown),  $N=10$  (purple), and  $N=11$  (dark grey). Each line shows a linear increase in entropy over time, reaching a plateau. The plateau height increases with  $N$ , and the time to reach the plateau also increases.

