

The graph displays the time evolution of the order parameter  $S$  for five different runs (run 0 to run 4) and their statistical summary. The x-axis represents time  $t$  from 0 to 20, and the y-axis represents the order parameter  $S$  from 0 to 1.0. The legend identifies the following series:

- run 0: Solid blue line
- run 1: Solid green line
- run 2: Solid red line
- run 3: Solid purple line
- run 4: Solid yellow line
- mean of means: Solid light blue line
- +STD: Dashed blue line
- STD: Dashed green line

The plot shows that all runs start at  $S=0$  and remain there until approximately  $t=4$ . After this point, the order parameter increases sharply for all runs, peaking around  $t=6$  before returning to zero. The peak values vary significantly between runs, with run 2 reaching the highest peak (near 1.0) and run 3 reaching the lowest (near 0.1). The 'mean of means' (solid light blue line) shows a peak of approximately 0.4 at  $t=6$ . The standard deviation is represented by the dashed lines, showing a peak in the spread around  $t=6$ .

