

Report Topics in Computational Science

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Plot the solution of the following map

$$\begin{aligned}x_{n+1} &= ax_n(1 - x_n) \\x_0 &= 0.35 \\n &= 1, \dots, 100\end{aligned}$$

with

1. $a = 0.5$
2. $a = 1.5$
3. $a = 3.3$
4. $a = 4.0$

The sensitivity plot

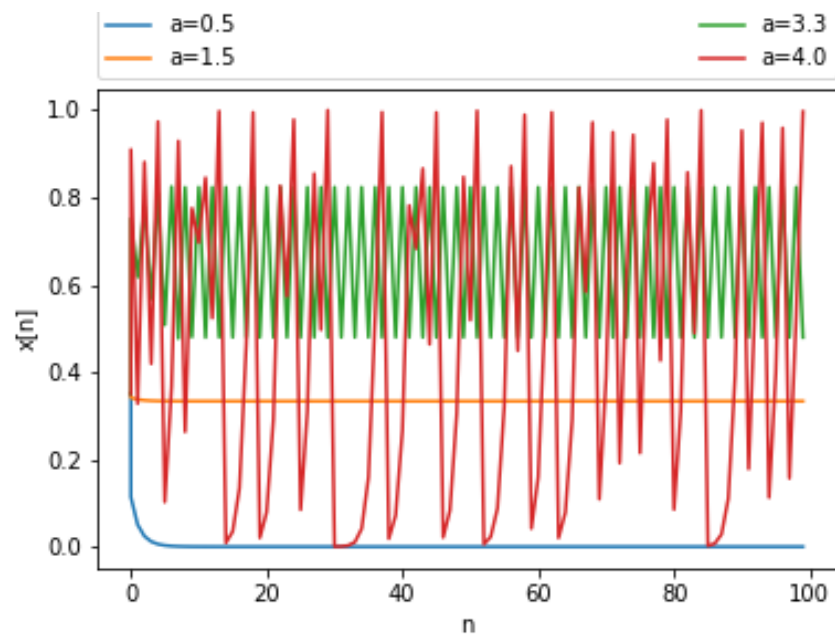


Figure 1:

and the logistic map

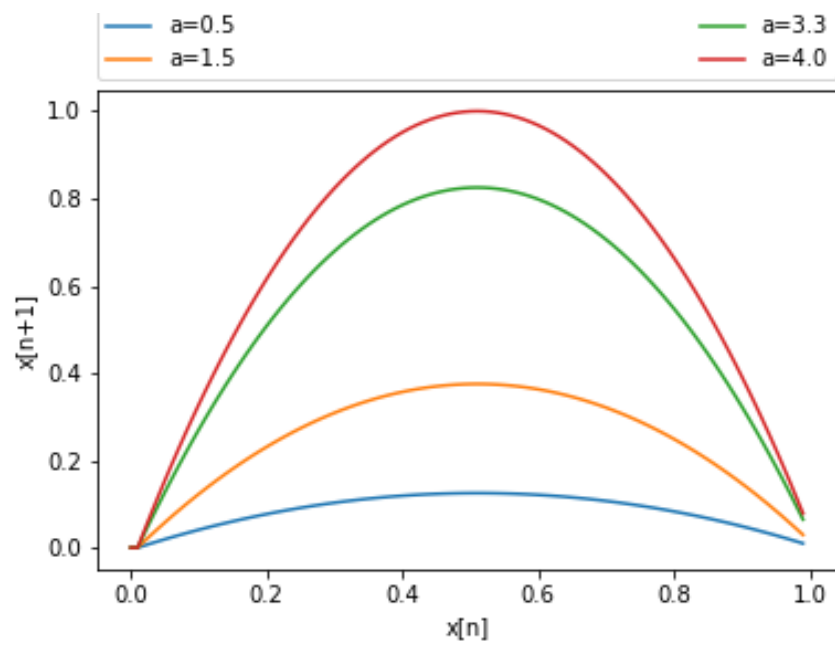


Figure 2: