Draft version September 23, 2025
Typeset using LaTeX default style in AASTeX631

Bifurcation and Chaos in the Logistic Map

Lily Nguyen[1] and Raymond Vu[2]

[1] *Department of Physics, The University of Texas at Austin*
Austin, TX 78712, USA
[2] *Department of —, The University of Texas at Austin*
Austin, TX 78712, USA

ABSTRACT

This is the abstract. The word limit is 250.

Keywords: keyword 1 (num) — keyword 2 (num) — keyword 3 (num)

1. INTRODUCTION

This is the intro section.

2. DATA

This is the data section.
Maybe add some lists/tables/whatever is needed.

3. INFORMATION ABOUT OBSERVATIONS

Write info about observations here.

3.1. *Specific Topic Pt 1*

topic 1

3.2. *Specific Topic Pt 2*

topic 2

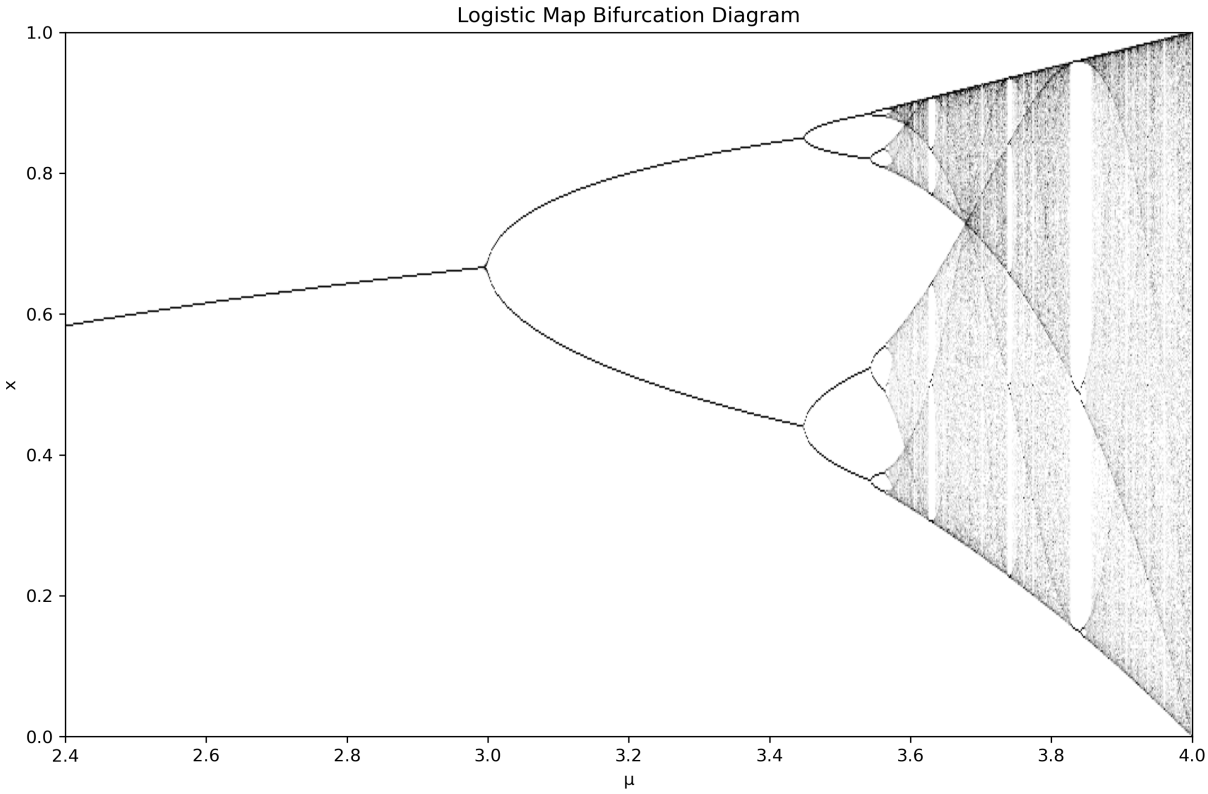

Figure 1. The logistic map bifurcation diagram for $2.4 \leq \mu \leq 4.0$. Stable fixed points exist for low values of μ, followed by successive period-doubling bifurcations that lead to chaotic behavior near $\mu \approx 3.57$.

3.3. *Specific Topic Pt 3*

topic 3

4. RESULTS

write about the results here.

5. SUMMARY AND CONCLUSION

Put the summary and conclusions here.

5.0.1. *References*

This is me citing Boeing (2016) in-text. This is me citing Bubolo at the end of this sentence (Bubulo 2018).

REFERENCES

Boeing, G. 2016, Systems, 4, 37, doi: https://www.mdpi.com/2079-8954/4/4/37

Bubulo, M. 2018, The Dynamics of the Logistic Map and Difference Equations