

ANALYSIS OF BIFURCATIONS FOR LOGISTIC FAMILIES

MD. Asraful Islam & Payer Ahmed

Research Scholar, Department of Mathematics, Jagannath University, Dhaka, Bangladesh

ABSTRACT

Bifurcation means a division, a rending apart. How and when physical, chemical and biological systems sustain sudden barbers of the behavior is the appearance of bifurcation. In the case of logistic bifurcation, we are considering the limits or end behaviors of logistic systems. To understand bifurcation behavior, it is often helpful to look at the bifurcation diagram. Saddle-node bifurcation and period-doubling bifurcation are speculated. Bifurcation diagram on logistic map for several iterations are analyzed. We have conferred aggregate espials for different parameter values. Finally, we have exhibited that the schemes are chaotic and non-chaotic for detached parameter appraises.

KEYWORDS: *Bifurcation, Period Doubling Bifurcation, Saddle-Node Bifurcation*

Article History

Received: 27 Jun 2020 | Revised: 27 Jul 2020 | Accepted: 05 Aug 2020
