

## **Abstract**

We discuss in this thesis 17 notions of chaos which are commonly used in the mathematical literature and related definitions , namely those being introduced by Devaney, Turbulence, Liapounove, Robinson, Wiggins, Touhey, Experimentanalists, Knudsen, P-chaos, Martelli, Block-Coppel, Li-Yorke, Entropy, Auslander, Smital, Kato,and S.Li respectively. We in particular show that for continuous mappings of a compact interval into itself the notions of chaos are equivalent ( except the notion in sense of Li and Yorke ) while each of these is sufficient but not necessary for chaos in the sense of Li & Yorke. We also give examples indicating that in the general context of continuous mappings between compact metric spaces the relation between these notions of chaos is more involved.