

Fig. 8. (a) The GM-attractor for $a = 0.008$, $b = 0.05$ and $\mu = 0.9$. (b) The evolution of FLIs.

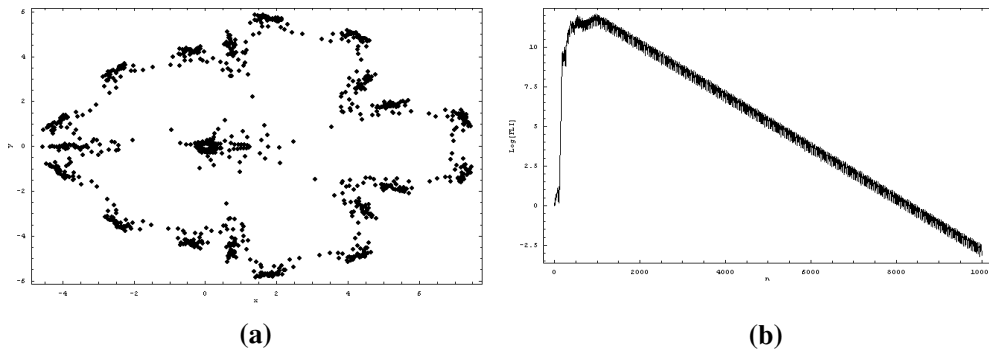


Fig. 9. (a) The GM-attractor for $a = 0.008$, $b = 0.05$ and $\mu = 0.2$. (b) The evolution of FLIs.

For $a = 0.008$, $b = 0.05$, $\mu = -0.9$, and initial conditions $x = 0.1$, $y = 0.1$, the attractor is shown in Fig. 3(a) and the corresponding plot of the FLIs is shown in Fig. 3(b). Here again the motion is chaotic but this is “slow-chaos” when compared to chaos shown in the above figures.

For $a = 0.008$, $b = 0.05$, $\mu = -0.6$, $x = 0.1$, $y = 0.1$, the attractor is shown in Fig. 4(a) and the plot of $\text{Log}(\text{FLI})$ versus iterations n is shown in Fig. 4(b).

3.2. Periodic Attractors

For $a = 0.008$, $b = 0.05$, $\mu = -0.71$, and initial conditions $x = 0.1$, $y = 0.1$, we get the phase-plot as shown in Fig. 5(a). The behavior of the FLIs is shown in Fig. 5(b) and Fig. 5(c).

Similar plot of FLIs is observed for the periodic orbit shown in Fig. 6(a) with initial conditions $x = y = 0.1$ and parameter values $a = -1.1$, $b = -0.2$, $\mu = -1.8$. The run of FLI with n is shown in Fig. 6(b).