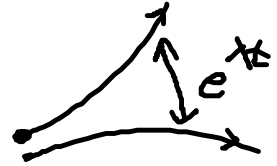


## Summary

- chaotic dynamics is characterized by a large sensitivity to initial conditions

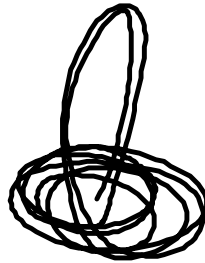
- concept of Lyapunov Exponent to determine stability

$$\lambda = \lim_{t \rightarrow \infty} \sup \frac{1}{t} \ln |x(t) - y(t)|$$



- strange attractors have fractal dimensions

$$d = \lim_{\varepsilon \rightarrow 0} \frac{\ln N(\varepsilon)}{\ln(1/\varepsilon)}$$



## 2. Kontrollkonzepte

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