

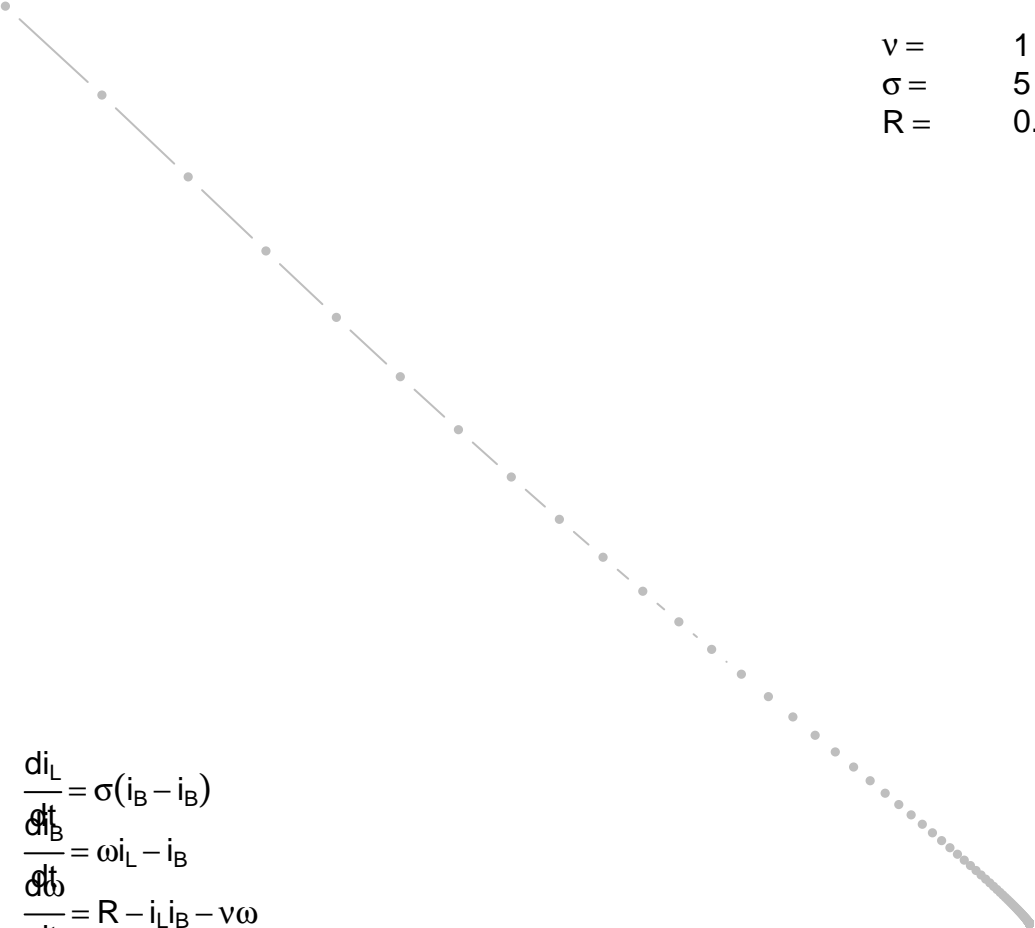
# Geodynamo chaos

$\nu = 1$   
 $\sigma = 5$   
 $R = 0.1$

$i_B$

$$\begin{aligned}\frac{di_L}{dt} &= \sigma(i_B - i_L) \\ \frac{di_B}{dt} &= \omega i_L - i_B \\ \frac{d\omega}{dt} &= R - i_L i_B - \nu \omega\end{aligned}$$

$\omega$

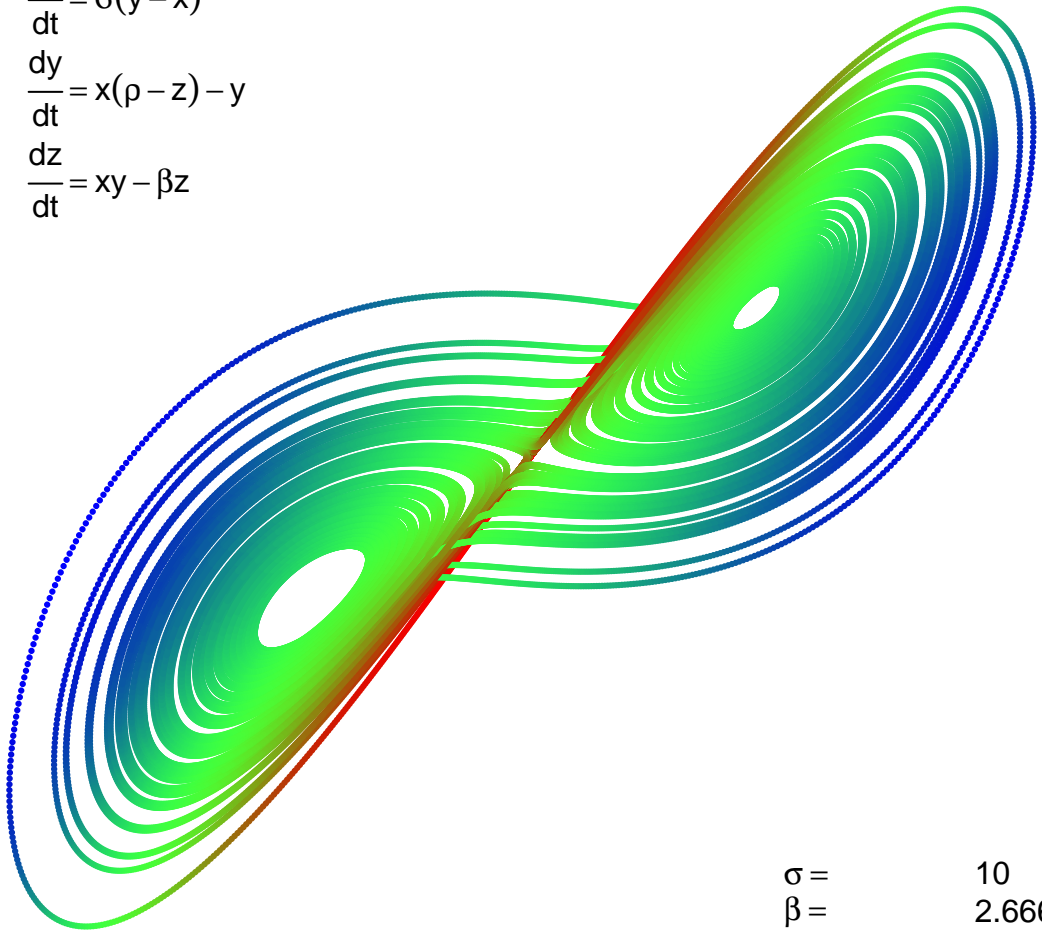


# The Lorenz system

$$\frac{dx}{dt} = \sigma(y - x)$$

$$\frac{dy}{dt} = x(\rho - z) - y$$

$$\frac{dz}{dt} = xy - \beta z$$



$\sigma =$	10
$\beta =$	2.666667
$\rho =$	28

x

y