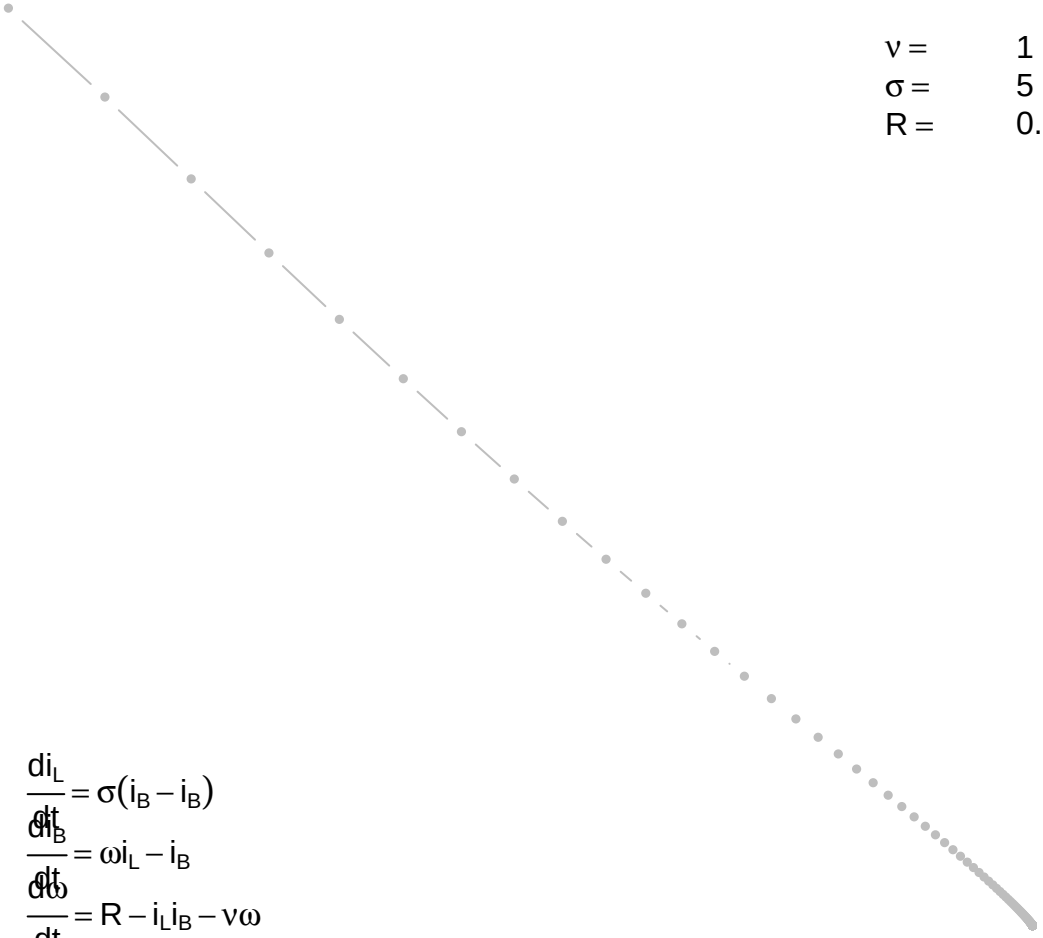
Geodynamo chaos



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

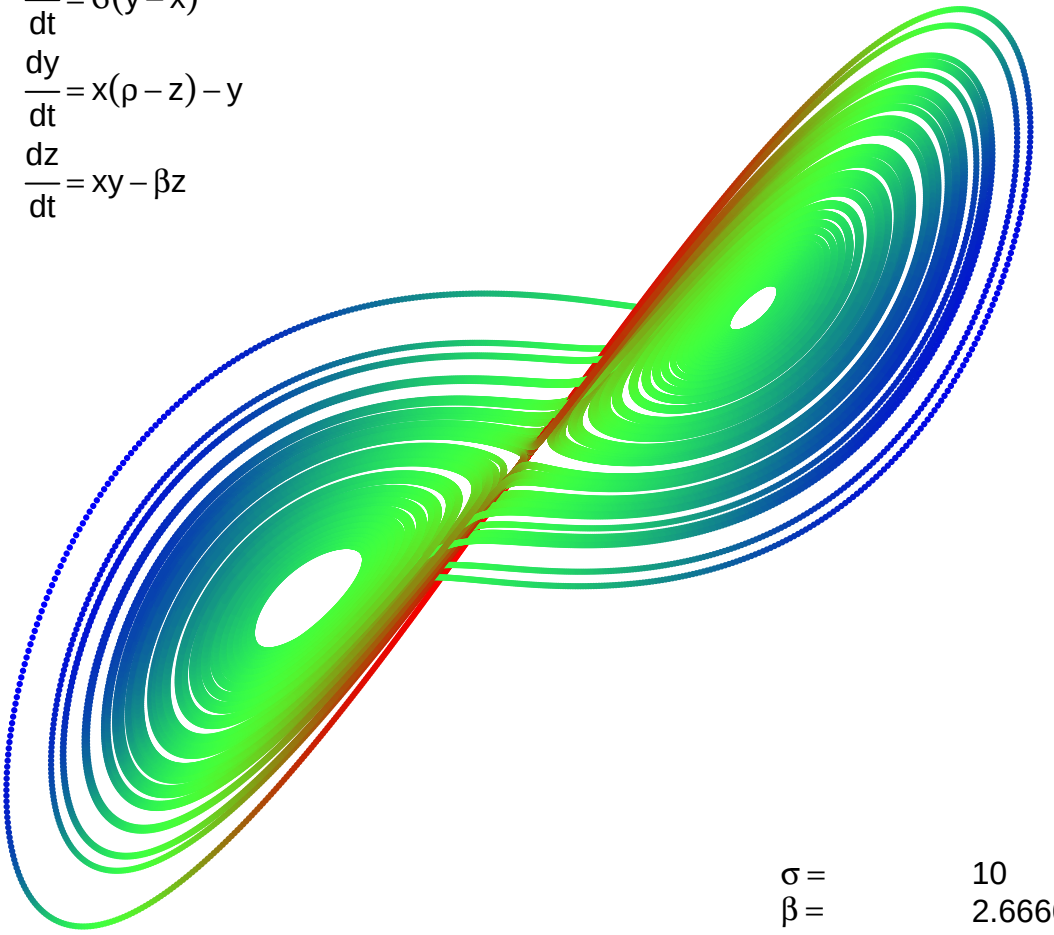
i_B

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

ω

The Lorenz system

$$\frac{dx}{dt} = \sigma(y - x)$$
$$\frac{dy}{dt} = x(\rho - z) - y$$
$$\frac{dz}{dt} = xy - \beta z$$



y

x

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