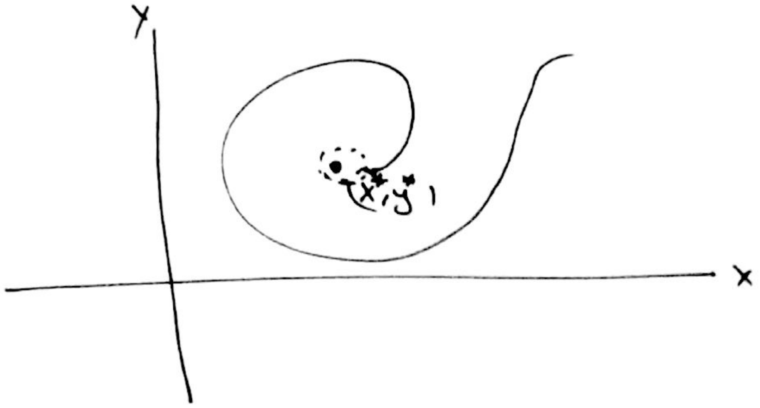
$$X(t+1) = \Phi(X(t), y(t))$$
$$y(t+1) = \Psi(X(t), y(t)) \qquad (1)$$



Somehow to control the convergence path so not to be destablized and also not to change fixed point position?

Trick:

$$(1)\quad (1+\xi)X(t+1) - \xi X(t+1) = X(t+1) = \Phi(X(t), y(t))$$
$$(1+\omega)y(t+1) - \omega y(t+1) = y(t+1) = \Psi(X(t), y(t))$$

ξ and ω introduced to control the convergence path and still don't change the fixed point (x^*, y^*).

$$X(t+1) = \frac{\xi}{1+\xi} X(t+1) + \Phi(X(t), y(t))$$
$$y(t+1) = \frac{\omega}{1+\omega} y(t+1) + \Psi(X(t), y(t))$$