constrained FINDR (cFINDR)

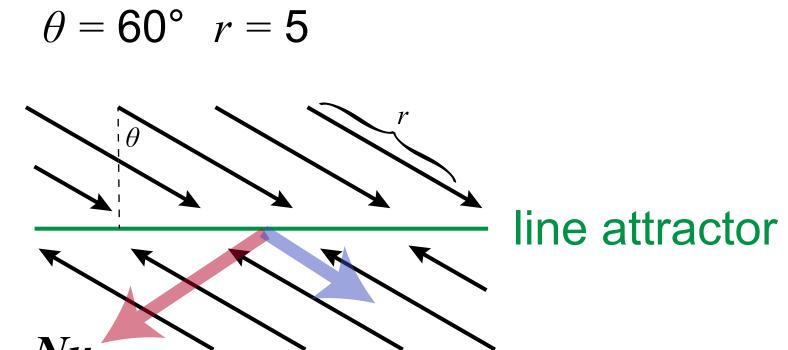
$$\dot{z} = Mz + Nu + s \cdot \varphi(z)$$

$$M = Q\Lambda Q^{-1}$$

$$Q = \begin{bmatrix} 1 & \sin(\theta) \\ 0 & \cos(\theta) \end{bmatrix}$$

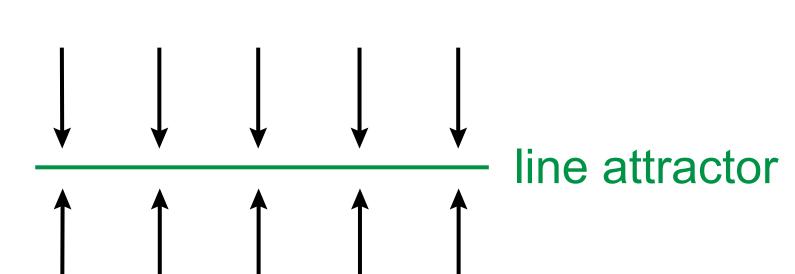
$$\Lambda = \begin{bmatrix} 0 & 0 \\ 0 & -r \end{bmatrix}$$



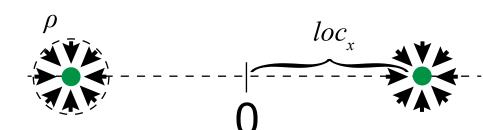


(direction of instantaneous change driven by inputs)

$$\theta = 0^{\circ}$$
 $r = 2.5$

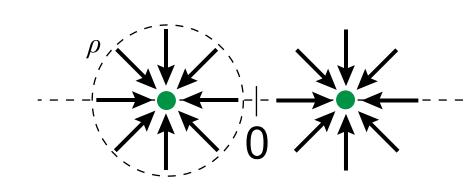


$$loc_{x} = 3$$
 $\rho = 5$



point attractors

(plus)
$$loc_x = 1.5 \quad \rho = 10$$



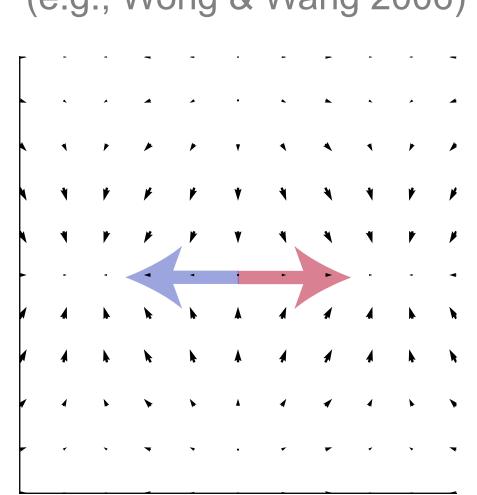
point attractors

Generative

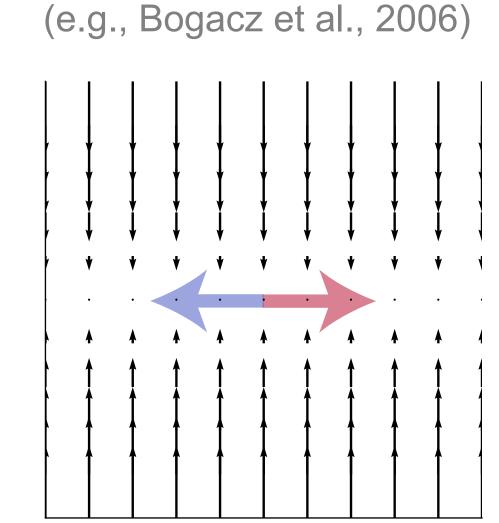
cFINDR-inferred

bistable attractors

(e.g., Wong & Wang 2006)

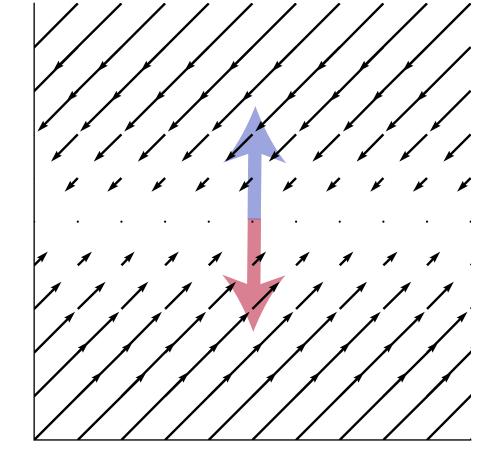


DDM line attractor

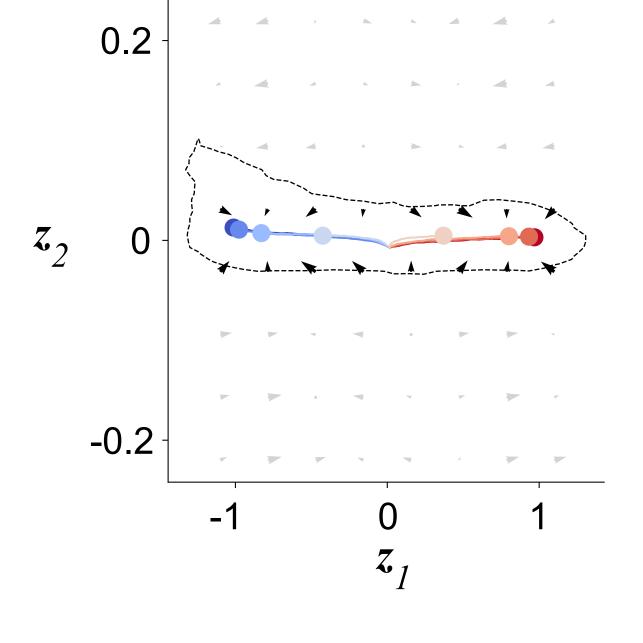


non-normal, line attractor

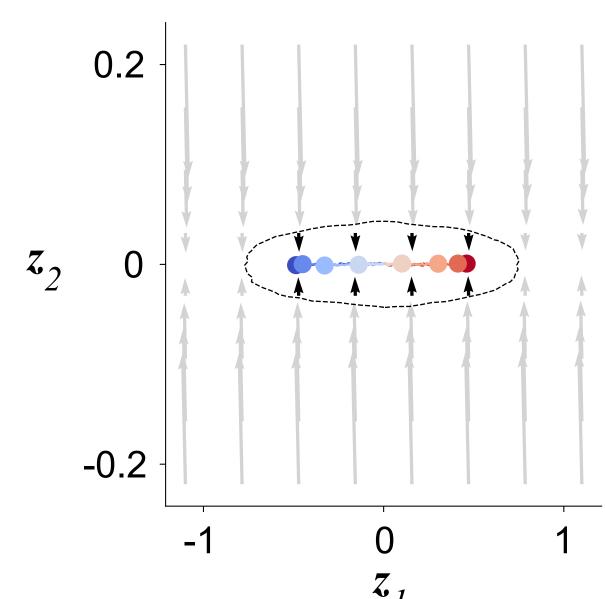




bistable attractors



DDM line attractor



non-normal, line attractor

