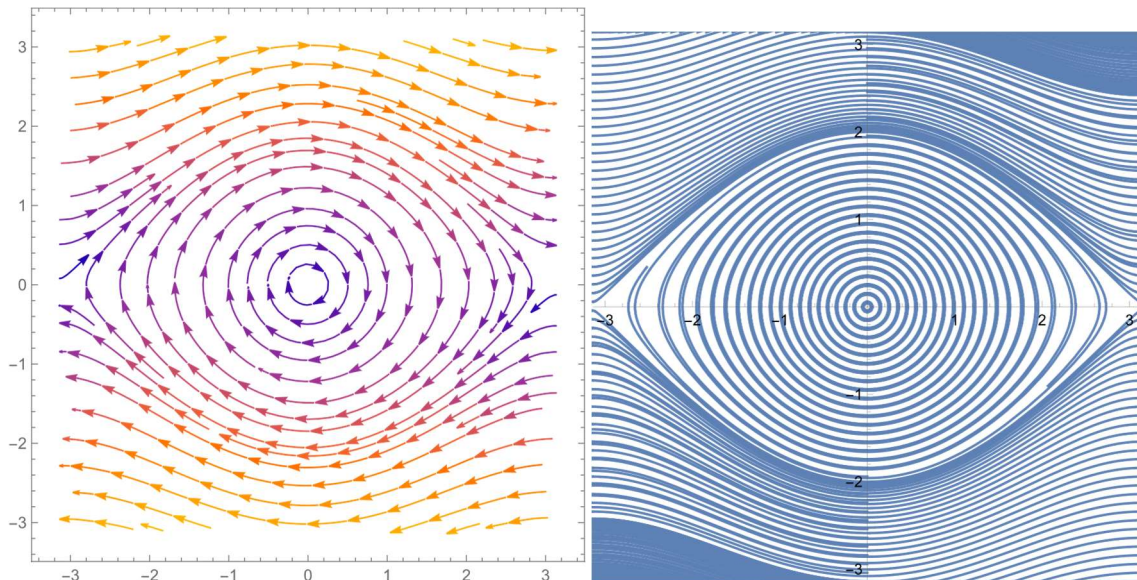
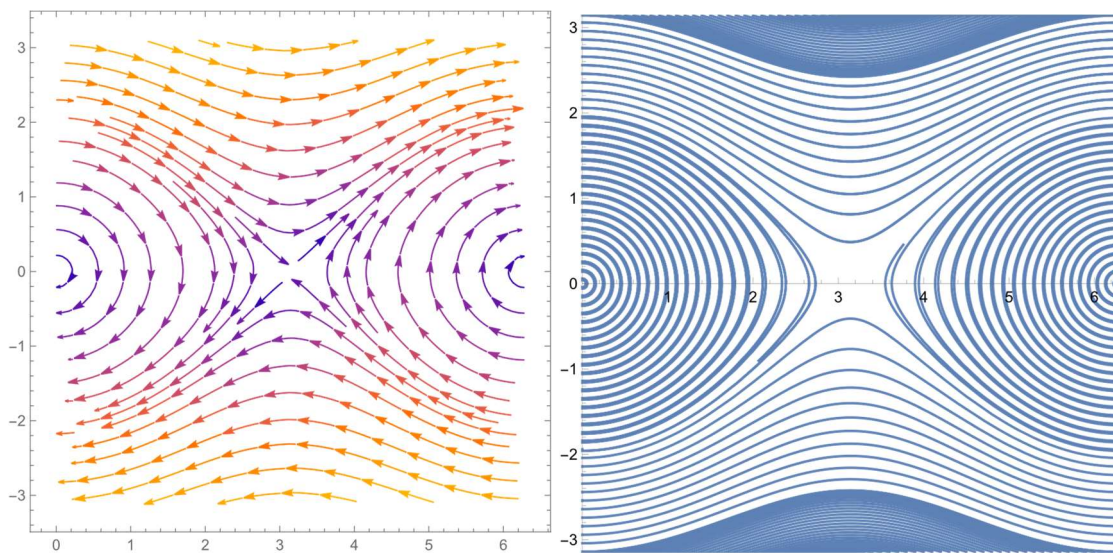


	$Det(A)$	$Tr(A)$	$Det(A)^2 - 4Tr(A)$	Classification	$(x^*, y^*)$
$\sigma = 0$	+, -	0, 0	-, +	Center, Saddle	$(0, 0), (\pi, 0)$
$\sigma < 2$	+, -	-, -	-, +	Spiral Sink, Saddle	$(0, 0), (\pi, 0)$
$\sigma = 2$	+, -	-, -	0, +	Degenerate Sink, Saddle	$(0, 0), (\pi, 0)$
$\sigma > 2$	+, -	-, -	+, +	Sink, Saddle	$(0, 0), (\pi, 0)$

$\sigma = 0, (0,0)$

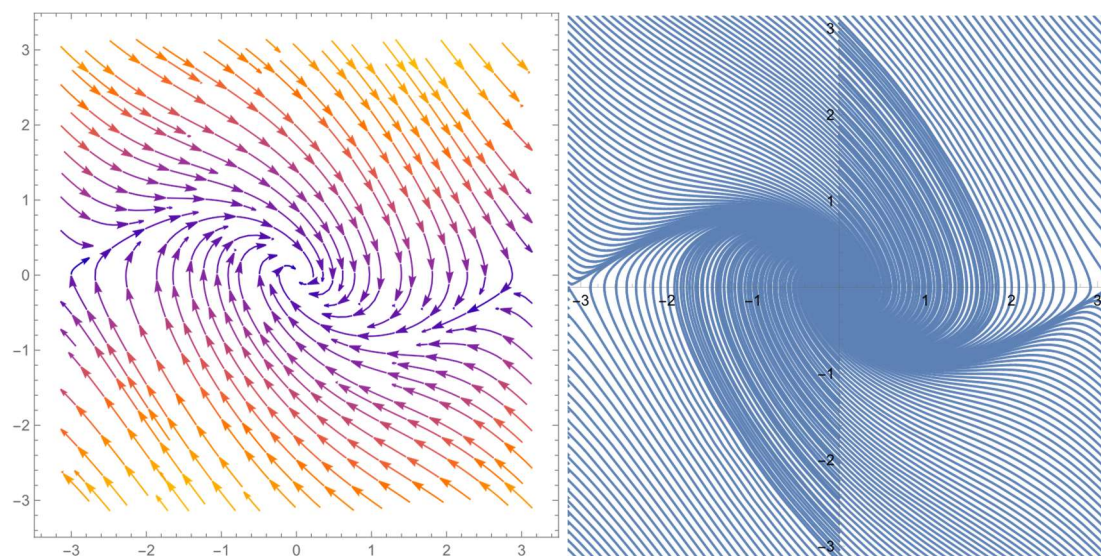


$\sigma = 0, (\pi, 0)$

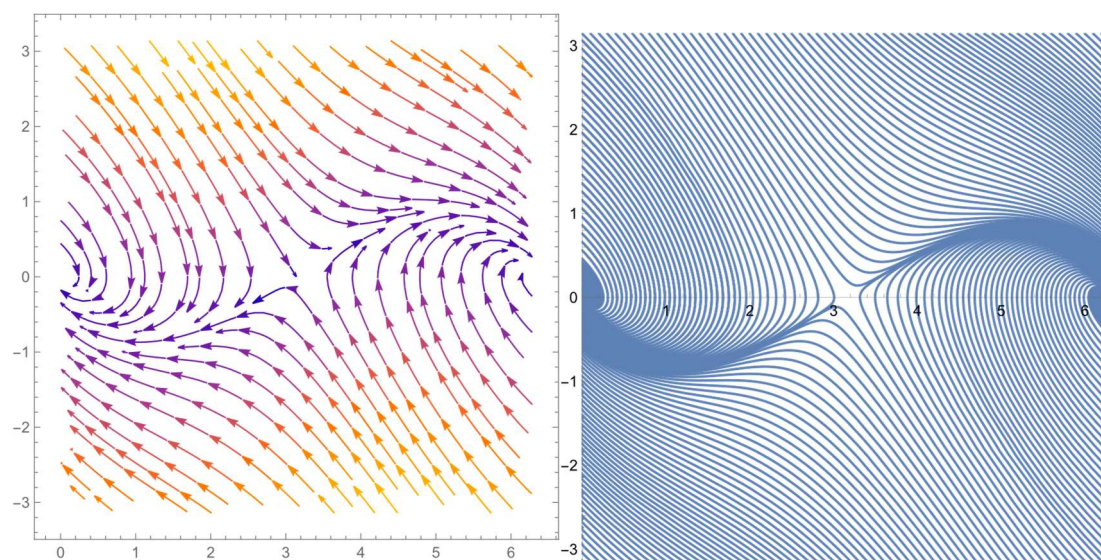




$\sigma = 1, (0,0)$

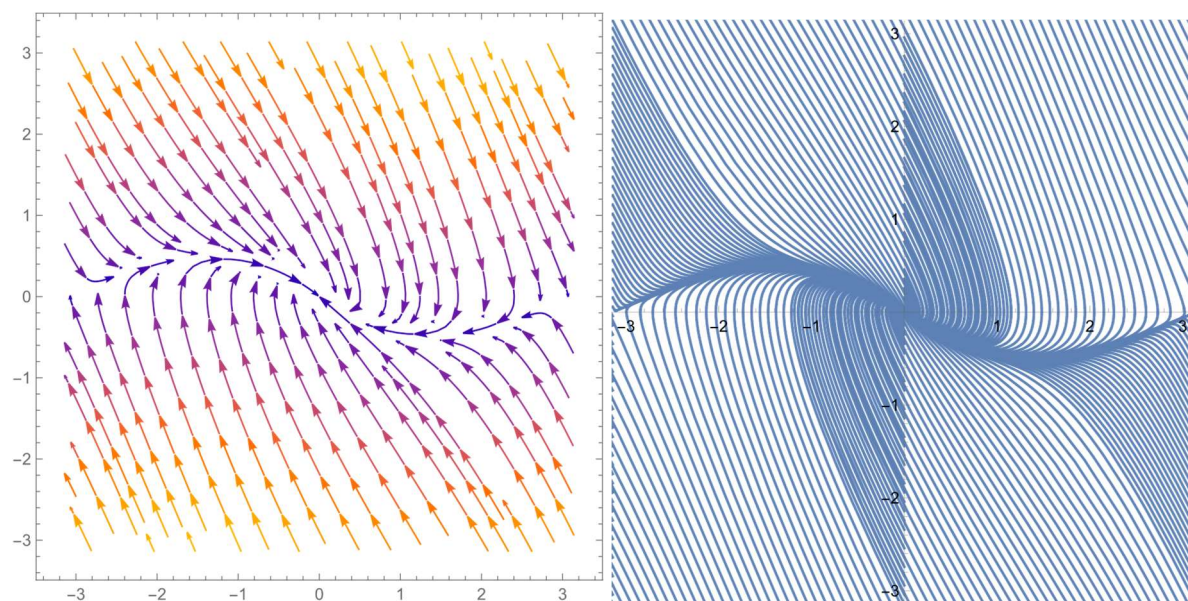


$\sigma = 1, (\pi, 0)$

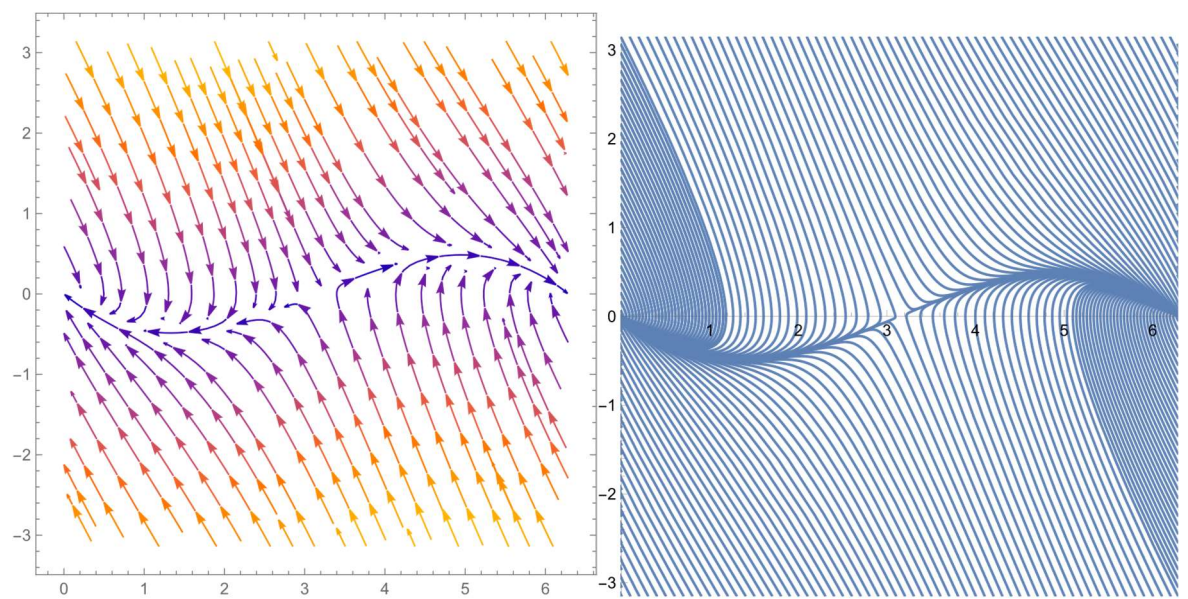




$\sigma = 2, (0,0)$

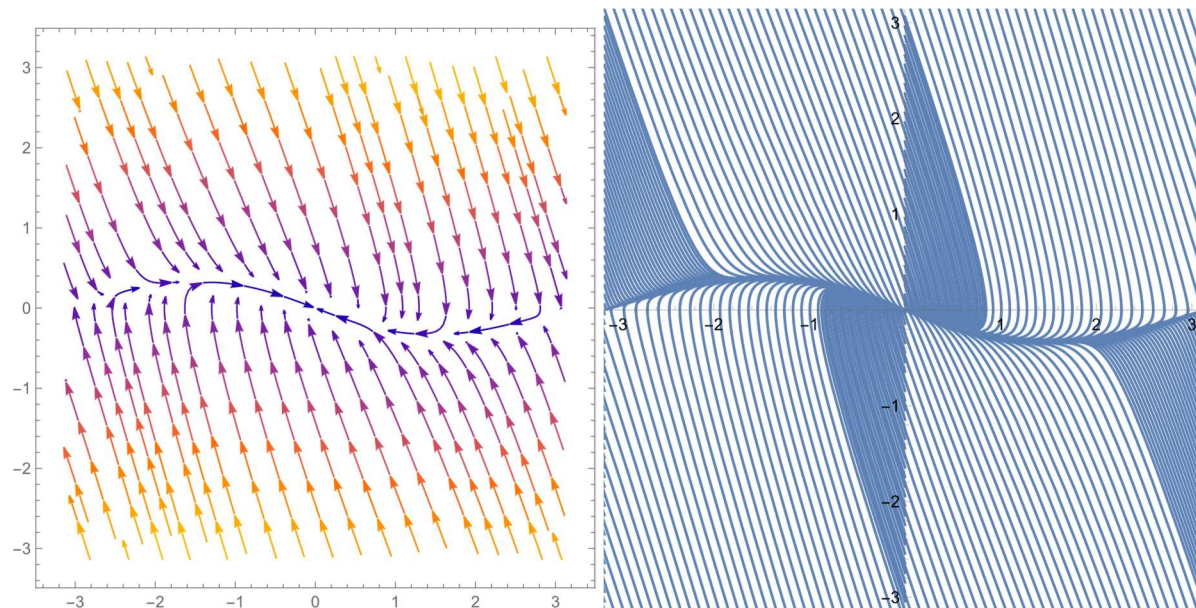


$\sigma = 2, (\pi, 0)$





$\sigma = 3, (0,0)$



$\sigma = 3, (\pi, 0)$

