

$MSE_{Bode}$ Algoritmos	BCRLS	MQE (PSOM)	BCRLS (PSOM)	MQE	MQ	MQR	PSO
$MSE_{av}$	$4.809 \times 10^{-3}$	$3.039 \times 10^{-3}$	$4.147 \times 10^{-3}$	$3.400 \times 10^{-3}$	$3.900 \times 10^{-3}$	$3.900 \times 10^{-3}$	$2.062 \times 10^{-2}$
$MSE_{var}$		$2.178 \times 10^{-7}$	$7.389 \times 10^{-7}$				$1.456 \times 10^{-5}$
$MSE_{min}(\%)$	11.682	5.380	5.357	8.259	9.474	9.474	21.996
$E_{Bode_{av}}(\%)$	45.856	40.012	43.629	41.787	43.602	43.601	111.020
$E_{Bode_{var}}(\%)$		$5.260 \times 10^0$	$8.251 \times 10^0$				$7.247 \times 10^3$
$E_{Bode_{min}}(\%)$	5.571	4.201	4.612	5.077	5.298	5.298	9.334
?? $y(k)$ $u(k)$							

$$(1) \quad y(k) = 2.14y(k-1) - 1.3049y(k-2) - 0.0963y(k-3) + 0.3467y(k-4) - 0.1097y(k-5) + 0.0105y(k-6) + 0.01u(k-1) + 0.0074u(k-2)$$

$$(2) \quad MSE = \frac{\sum_{i=1}^{N_1} (y(i) - y_{estimated}(i))^2}{N_1}$$

$$(3) \quad E_{Bode} = \frac{\sum_{i=1}^{N_2} \left( \left| \frac{Bode_{abs} - RBode_{abs}}{Bode_{abs}} \right| + \left| \frac{Bode_{phase} - RBode_{phase}}{Bode_{phase}} \right| \right)^2}{N_2}$$

$$(4) \quad Result_{min}(\%) = 100 - \frac{100 \times |MaxResult - Result_{min}|}{MaxResult}$$