

Future earthquake	Unperturbed condition	Perturbed condition
One-mode event 01	$\tilde{Z}_a \leq Z_1 < 0.71$	$\tilde{Z}_a \leq Z_1 < 0.43$
Two-mode event 01-10	$Z_1 = 0.71$	$Z_1 = 0.43$
Three-mode event 01-11-01	$0.71 < Z_1 < Z_c$	$0.43 < Z_1 < Z'_c$
Two-mode event 11-01	$Z_1 = Z_c$	$Z_1 = Z'_c$
Three-mode event 10-11-01	$Z_c < Z_1 < 0.92$	$Z'_c < Z_1 < 0.64$
Two-mode event 10-01	$Z_1 = 0.92$	$Z_1 = 0.64$
One-mode event 10	$0.92 < Z_1 \leq \tilde{Z}_b$	$0.64 < Z_1 \leq \tilde{Z}_b$