***One-Hemisphere discrete attractor model***

|  |  |
| --- | --- |
| Parameter | Value |
|  | *100 ms* |
|  | *0 ms* |
|  | *5.8* |
|  | *5* |
|  | *1.08* |
|  | *0.9* |
|  | *2* |
| *During presample* | *2.27* |
| *During sample and delay* | *4.27* |
|  | *1* |
|  |  |
|  | [*0, 1, 2, 6*] |
|  | *0.8 s* |
|  | *0.14 s* |
|  | *0.05* |
|  | *9* |

***One-hemisphere negative derivative feedback integrator model***

|  |  |
| --- | --- |
| Parameter | Value |
|  | *20 ms* |
|  | *10 ms* |
|  | *100 ms* |
|  | *25 ms* |
|  | *10 ms* |
|  | *150* |
|  | *298.5* |
|  | *550* |
|  | *300* |
|  | *301.99* |
|  | *600* |
|  | *0* |
| *Contra trials* |  |
| *Ipsi trials* |  |
|  | [*0, 150, 300, 400*] |
|  | *5* |
| *Autocorrelation decay time* | *5 ms* |
| *Noise reduction time const.*  *(Extended Data Fig. 7l)* | *2 s* |

***Two-Hemisphere discrete attractor model - External ramping input***

|  |  |
| --- | --- |
| Parameter | Value |
|  | *100 ms* |
|  | *0 ms* |
|  | *5.8* |
|  | *5* |
|  | *1.08* |
|  | *0.9* |
|  | *2* |
|  | *0.8* |
| *During presample* | *0.9* |
| *End of the delay epoch* | *4.15* |
|  | *1.08* |
|  |  |
|  | [*0, 0.5, 1, 3.5*] |
|  | *0.8 s* |
|  | *0.14 s* |
|  | *0.05* |
|  | *9* |

***Two-Hemisphere discrete attractor model - slow internal dynamics***

|  |  |
| --- | --- |
| Parameter | Value |
|  | *100 ms* |
|  | *0 ms* |
|  | *9.75* |
|  | *2.5* |
|  | *4* |
|  | *2.5* |
|  | *1* |
|  | *0.4* |
|  | *5.15* |
|  | *1* |
|  |  |
|  | [*0, 1.07, 2.14, 7.5*] |
|  | *0.1 s* |
|  | *0.12 s* |
|  | *0.1* |
|  | *9* |