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Technological Sciences

Modelling envelope and temporal fine structure components of frequency-following responses in rat inferior colliculus

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the Guidelines of the Beijing Laboratory Animal Center the Policies on the Use of Animal and Humans in Neuroscience Research

Bregma

c a b c

b

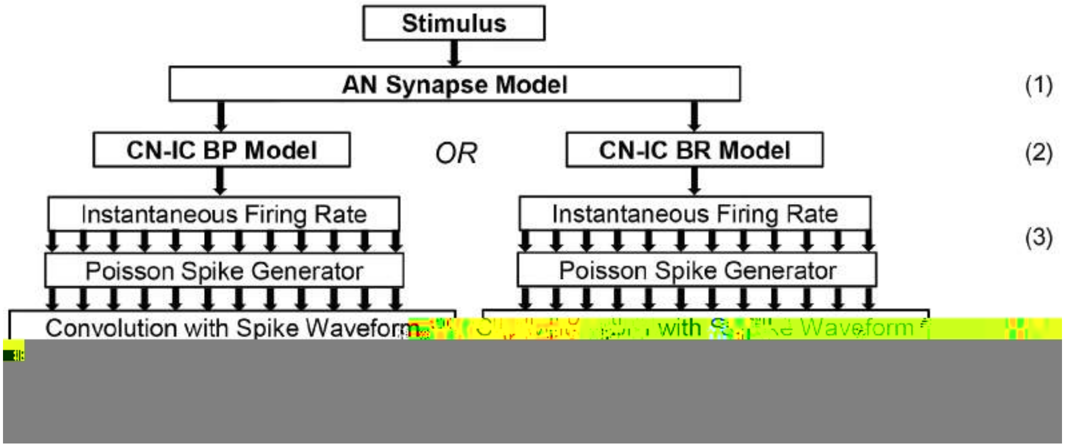
t

k

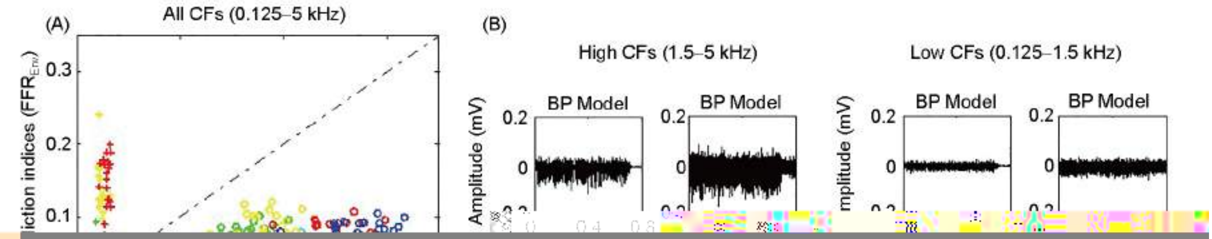
$$k(t) \propto \exp\left(-\frac{t^2}{2\rho^2}\cos\left(2\pi f_g t+\phi\right)\right),$$

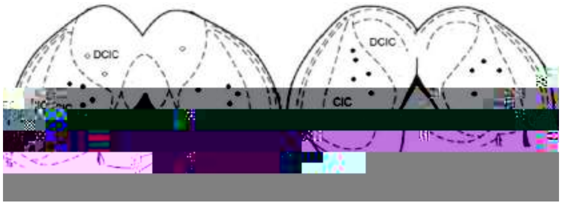
ρ ϕ

f_g



f

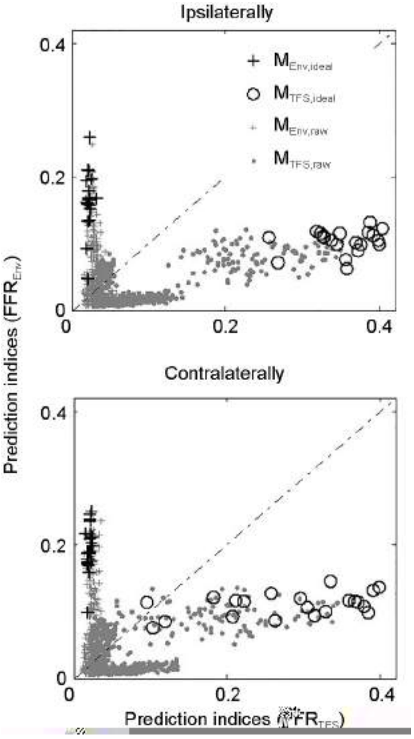

(A)
All CFs (0.125–5 kHz)
0.3
0.2
0.1
iction indices (FFREnv)
(B)
High CFs (1.5–5 kHz)
Low CFs (0.125–1.5 kHz)
BP Model
BP Model
BP Model
BP Model
Amplitude (mV)
0.2
0
0.2
0
mplitude (mV)
0.2
0
0.2
0


DCIC
DCIC
CIC

t

p

t p


Ipsilaterally
$M_{Env,ideal}$
$M_{TFS,ideal}$
$M_{Env,raw}$
$M_{TFS,raw}$
0
0.2
0.4
0
0.2
0.4
Contralaterally
0
0.2
0.4
0
0.2
0.4
Prediction indices (FFR_{Env})
Prediction indices (FFR_{TFS})

k

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