Spatially structured oscillations in a two-dimensional excitatory neuronal network with synaptic depression

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Abstract [illegible]

Keywords [illegible]

Action Editor: Bard Ermentrout

1 Introduction

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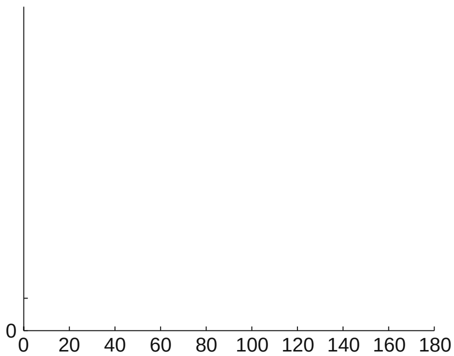
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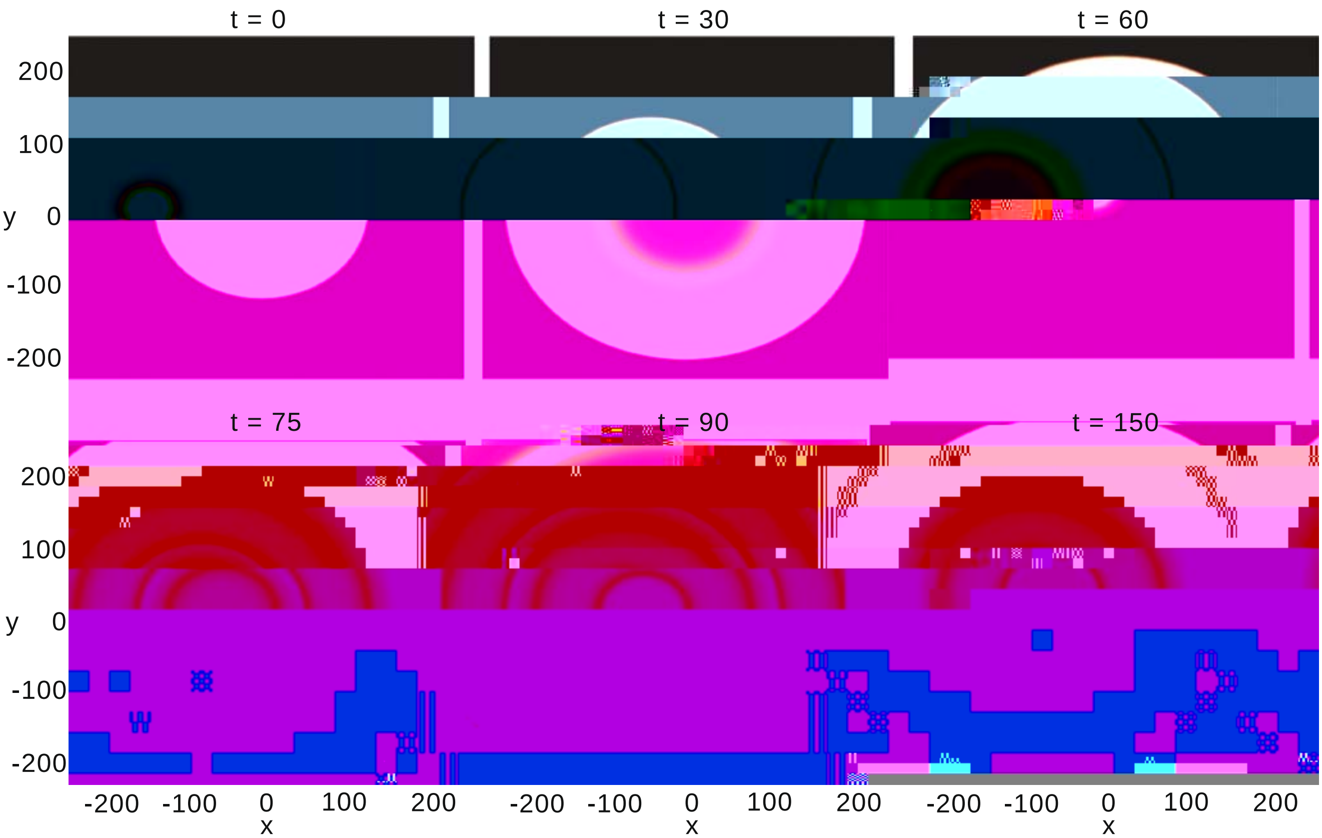

Fig. 7 S ... u, x, y, t ... (.1) ... $t = $ ...

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. N ...

t t r t t
r t r t rt r r (.1)

$$L_h \quad \frac{u_{ij}^{k+} - u_{ij}^{k}}{t} + u_{ij} + \quad _{ij} t \quad = M q_{ij} f \, u_{ij} \; .$$

$$\frac{q_{ij}^{k+} - q_{ij}^{k}}{t} = \frac{ - q_{ij}}{} - \quad q_{ij} f \, u_{ij} \; . \qquad (\; . \;)$$

r $i = \; .,,,. \; N_x$ $j = \; .,,,. \; N_y$, L_h t t -
r r t r rt r . (.1),
u_{ij} q9.7(57(y)Tj /F1 1 Tf 10 0 0p0n-0 6.9999 202.083 597.0,)T.m3e64 597.sl 202.08310609.5(the)-209(linear)m 0 Tc3line75c

t $H, u -$. t t t r
t t r t t t r (u)
r / t t $, u. q = ,$ . . T t t t
t t t r t
$$J, . = - / - \quad (.)$$
t r r t r r t r t r .
t t r t t t t
r r r t t , t t t t
t r t t f t r
t r .
t r (u /), r
t t
$$/ = -u + q. \quad (.)$$
$$/ = - q - q. \quad (.)$$
t (u,q) = (+ , +)
t, r + . t t t r-
t t
$$J, u. q. a = - / - + . \quad (.)$$
r t t t t t t t .
T r r , t t , t t t
+ , t r .1 . t
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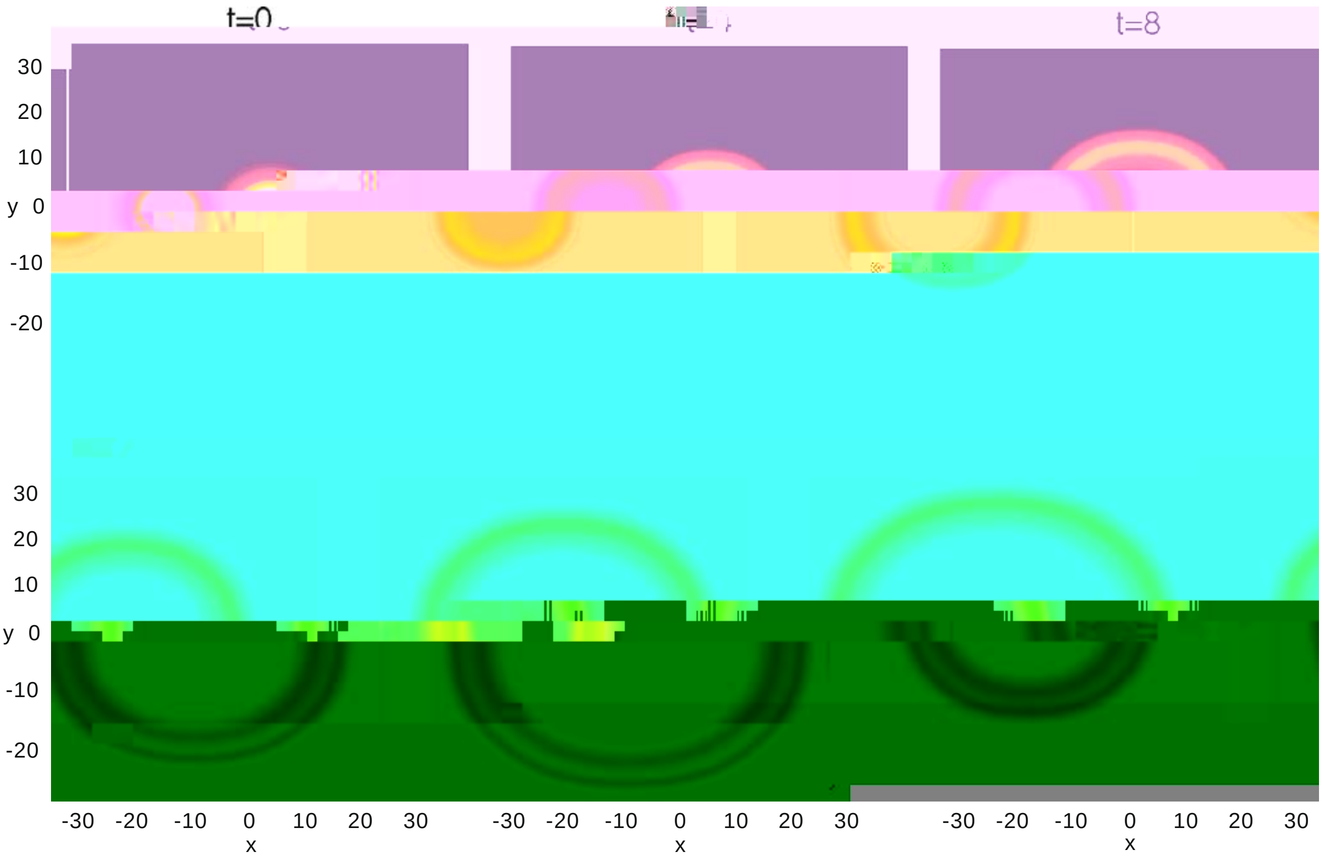

Fig. 13 [illegible]

t t t r (.1) r r tr r t t t r t (r 00). T t t

$$a.r = a \quad J \quad J \qquad (.1)$$

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$$a \int^{\infty} \frac{}{+s} J \, J = \frac{a}{s} I \, sa \, K \, sa .$$

r I t t t r t . T , t t r t t t r r a

$$+ = a . \qquad (.1)$$

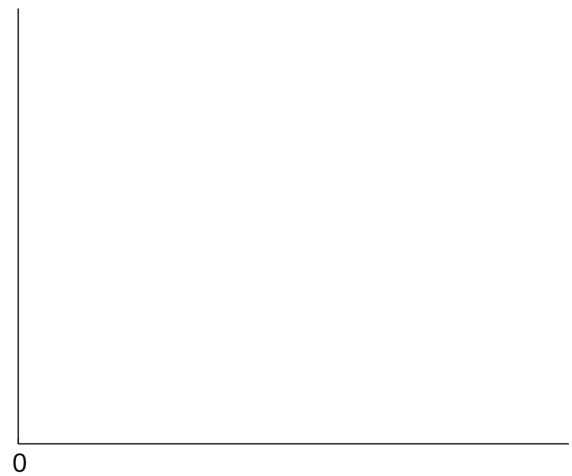
t

$$a \equiv a. a$$

$$= - aI \, a \, K \, a - \frac{a}{} I \, a \, K \, a \qquad (.1)$$

t t r a r tr t r .1 . N r t t t r t , t t r t r t r r r t t t . t r t t (t . 00 t . 00)

t t r tr t r- r t r t t , t t t r t, t t - t t r t r . - r t t (t r tr t 001 r 00 t . 00), r r t r t . r, r t t - (tr . r 00), r r t t t r r r rt r t t r . t t r t tr t sign rt r t t - = + t t . T t t r r .



(1 10) ... (0.1 1), ... (t . 00).

Acknowledgements T ... rt rt t Nt S t (S-0 1) r N -C1-01 - ... S T (ST). C ... rt rt t S t - ... C r ...

References

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r , S. (1). tt r r t t r - t t r . *Biological Cybernetics, 27*, .

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