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

Zachary P. Kilpatrick · Paul C. Bressloff

Abstract ... *in vivo*. ...

Keywords ...

1 Introduction

... *in vivo* ... *in vitro* ... *in vitro* ...

Action Editor: Bard Ermentrout

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$$f(u) = H(u - \ ) = \begin{cases} \ . & u \in (-\infty, \ ) \\ \ . & u \in [\ , \infty) \end{cases} \qquad (\ .\ )$$

$$f(u) = \ + \ (u - \ ) \qquad (\ .\ )$$

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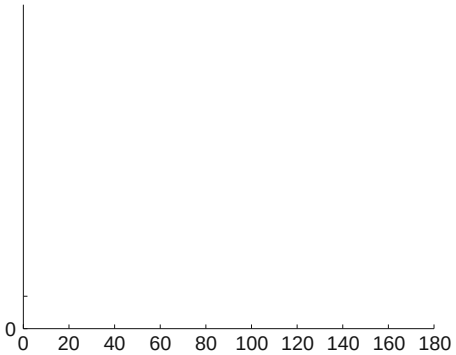
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N r t t r t r r t t , t t . (.1) (.)

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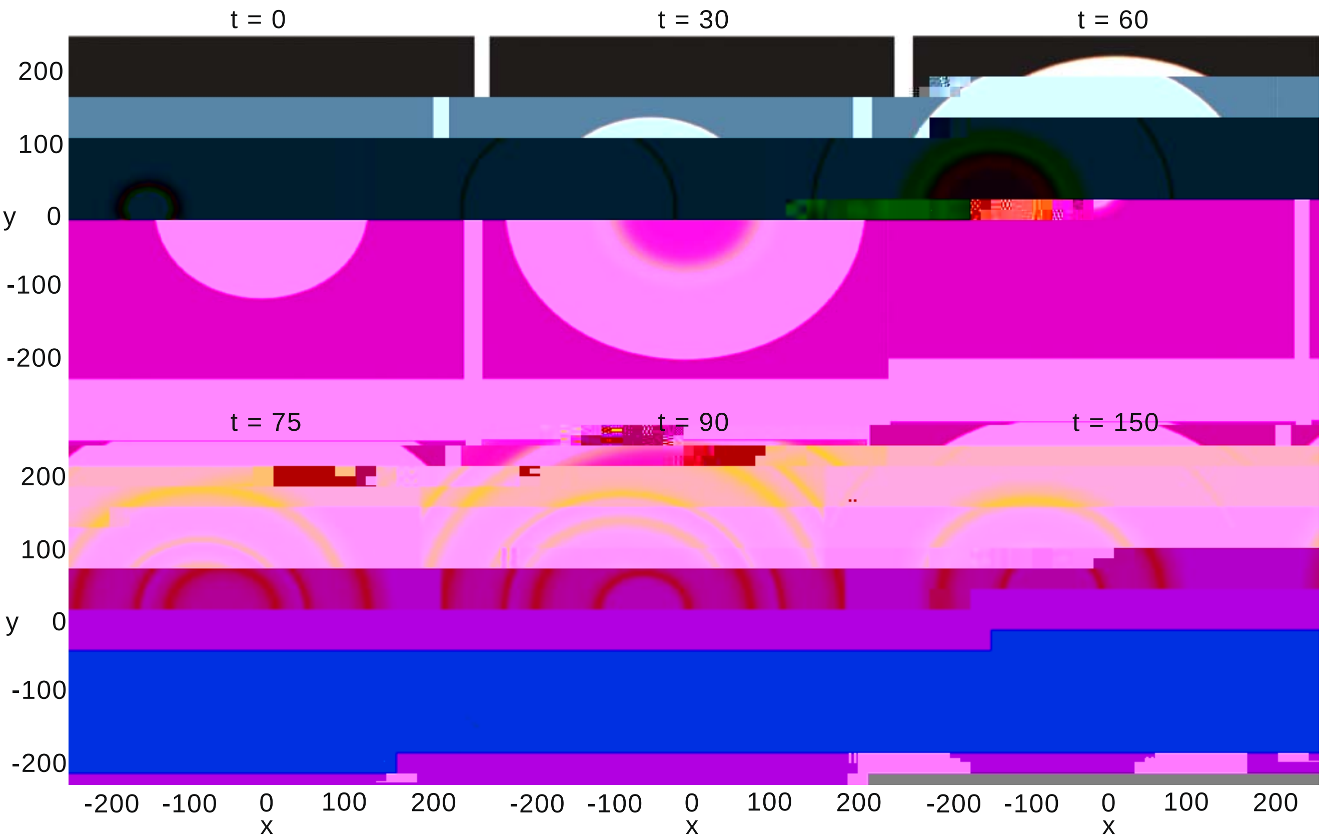

Fig. 7 [illegible]

[illegible]

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$$L_h \frac{u_{ij}^{k+} - u_{ij}^{k}}{t} + u_{ij} + \_ _{ij}, t = Mq_{ij} f, u_{ij} .$$

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

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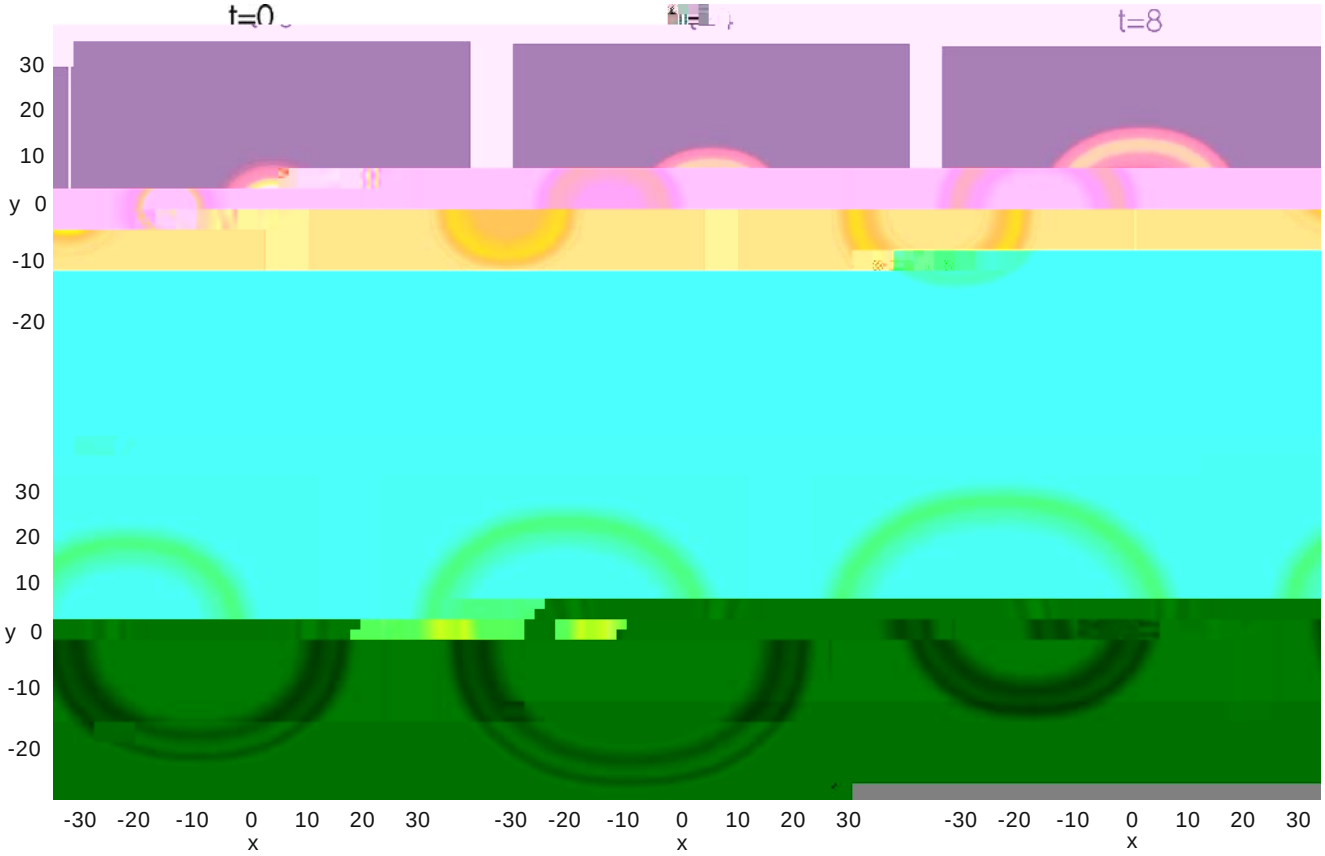

Fig. 13 S u, x. y.

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$$\Gamma(a.r) = \int_0^\infty e^{-at} J_r(\sigma t) J_r(\sigma t)\, dt. \qquad (.1)$$

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$$a \int_0^\infty \frac{dt}{\sqrt{t^2+s^2}} J_r(\sigma t) J_r(\sigma t) = \frac{a}{s} I_r(sa) K_r(sa).$$

r I t
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$$\Gamma(a) + \Gamma(\quad) = \Gamma(a). \qquad (.1)$$

t

$$\Gamma(a) \equiv \Gamma(a.a)$$

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

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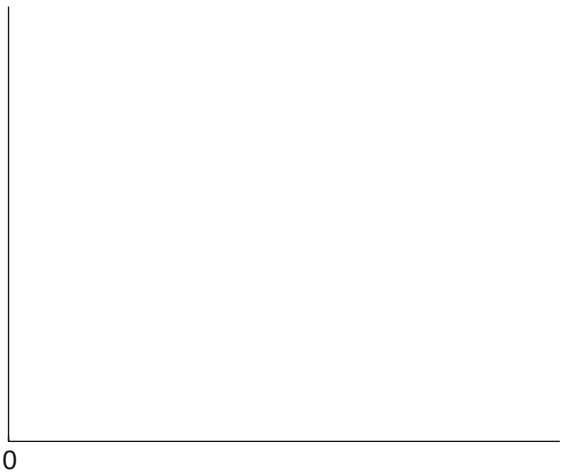

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Acknowledgements T t t r t t N t S t (S- 0 1) r N -C1-01 - r t S T (ST). C r t r t S t - t . t t C r r r t r r t . t r r tr t r t r r t t - t t .

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