

# Insert title here

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**Abstract:** The abstract text goes here.

## 1. Insert A head here

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### 1.1. Insert B head here

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## 2. Equations

Sample equations.

$$\begin{aligned}\frac{\partial u(t, x)}{\partial t} &= Au(t, x) \left(1 - \frac{u(t, x)}{K}\right) - B \frac{u(t - \tau, x)w(t, x)}{1 + Eu(t - \tau, x)}, \\ \frac{\partial w(t, x)}{\partial t} &= \delta \frac{\partial^2 w(t, x)}{\partial x^2} - Cw(t, x) + D \frac{u(t - \tau, x)w(t, x)}{1 + Eu(t - \tau, x)},\end{aligned}\tag{1}$$

$$\begin{aligned}\frac{dU}{dt} &= \alpha U(t)(\gamma - U(t)) - \frac{U(t - \tau)W(t)}{1 + U(t - \tau)}, \\ \frac{dW}{dt} &= -W(t) + \beta \frac{U(t - \tau)W(t)}{1 + U(t - \tau)}.\end{aligned}\tag{2}$$

$$\frac{\partial(F_1, F_2)}{\partial(c, \omega)} \Big|_{(c_0, \omega_0)} = \begin{vmatrix} \frac{\partial F_1}{\partial c} & \frac{\partial F_1}{\partial \omega} \\ \frac{\partial F_2}{\partial c} & \frac{\partial F_2}{\partial \omega} \end{vmatrix} \Big|_{(c_0, \omega_0)} = -4c_0q\omega_0 - 4c_0\omega_0p^2 = -4c_0\omega_0(q + p^2) > 0.$$

### 3. Enunciations

**Theorem 1.** Assume that  $\alpha > 0, \gamma > 1, \beta > \frac{\gamma+1}{\gamma-1}$ . Then there exists a small  $\tau_1 > 0$ , such that for  $\tau \in [0, \tau_1)$ , if  $c$  crosses  $c(\tau)$  from the direction of to a small amplitude periodic traveling wave solution of (2.1), and the period of  $(\check{u}^p(s), \check{w}^p(s))$  is

$$\check{T}(c) = c \cdot \left[ \frac{2\pi}{\omega(\tau)} + O(c - c(\tau)) \right].$$

**Condition 1.** From (0.8) and (2.10), it holds  $\frac{d\omega}{d\tau} < 0, \frac{dc}{d\tau} < 0$  for  $\tau \in [0, \tau_1)$ . This fact yields that the system (2.1) with delay  $\tau > 0$  has the periodic traveling waves for smaller wave speed  $c$  than that the system (2.1) with  $\tau = 0$  does. That is, the delay perturbation stimulates an early occurrence of the traveling waves.

### 4. Figures & Tables

The output for figure is:

*Fig. 1. Insert figure caption here*

a Insert Sub caption here

b Insert Sub caption here

The output for table is:

**Table 1** An Example of a Table

One	Two
Three	Four

### 5. Conclusion

The conclusion text goes here.

### 6. Acknowledgment

Insert the Acknowledgment text here.

### 7. References

#### 7.1. Websites

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## 8. **Appendices**

Appendices are allowed but please be aware that these are included in the overall word count.