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# Insert the article title here

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Subject Index xxxx, xxx

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## 1 Insert A head here

This demo file is intended to serve as a "starter file" for ptephy journal papers produced under LATEX using ptephy\_v1.cls v0.1

#### 1.1 Insert B head here

Subsection text here.

#### 1.1.1 Insert C head here

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## 2 Equations

Sample equations.

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

$$\frac{dU}{dt} = \alpha U(t)(\gamma - U(t)) - \frac{U(t - \tau)W(t)}{1 + U(t - \tau)},$$

$$\frac{dW}{dt} = -W(t) + \beta \frac{U(t - \tau)W(t)}{1 + U(t - \tau)}.$$
(2)

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

## 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.

*Proof.* Sample proof text. Sample proof text.

# 4 Figures & Tables

The output for figure is:

Fig. 1 Insert figure caption here

An example of a double column floating figure using two subfigures. (The subfig.sty package must be loaded for this to work.) The subfigure \label commands are set within each subfloat command, the \label for the overall figure must come after \caption. \hfil must be used as a separator to get equal spacing. The subfigure.sty package works much the same way, except \subfigure is used instead of \subfloat.

The output for table is:

**Table 1** An Example of a Table.

One	Two
Three	Four

### 5 Conclusion

The conclusion text goes here.

## Acknowledgment

Insert the Acknowledgment text here.

#### References

- [1] J. P. Blaizot, and E. Iancu, Phys. Rep. 359, 355 (2002).
- [2] M. Gyulassy, and L. McLerran, Nucl. Phys. A **750**, 30 (2005).
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- [4] T. Hirano, U. W. Heinz, D. Kharzeev, R. Lacey, and Y. Nara, Phys. Lett. B 636, 299 (2006).
- [5] R. Baier, A. H. Nueller, D. Schiff, and D. T. Son, Phys. Lett. B **502**, 51 (2001).

# A Appendix head

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$$a + b = c \tag{A1}$$

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 Table A1
 An Example of a Table.

One	Two
Three	Four

## A.1 Appendix subhead

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$$a + b = c \tag{A2}$$

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Fig. A1 Figure caption

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$$a + b = c (A3)$$

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# B Appendix heading

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$$a + b = c \tag{B1}$$

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$$a + b = c \tag{B2}$$

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### Fig. B1 Figure caption

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Fig. B2 Figure caption

**Table B1** An Example of a Table.

One	Two
Three	Four

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