

**On the manuscript “Analysis of wave propagation in a discrete chain of bilinear oscillators”  
by M. Kuznetsova et al.**

The article presents the numerical results for a chain of masses connected by bilinear springs. The results are compared with those obtained in continuous approximation.

This is a potentially interesting topic. However, the manuscript is short and looks rather as an extended abstract. Too many details are omitted to enable a reliable evaluation. Still let me formulate several questions:

1. Even the basic boundary condition is not clear. The notation  $H$  is not defined. If is the Heaviside step,  $F(t)$  is non-zero for all  $t < 2\pi / \omega$ , including  $t < 0$ . Evidently, only  $t > 0$  is considered but it is never explicitly mentioned. Usually such impulses are represented as a difference of two Heaviside steps.
2. Since the wave changes its sign, then according to (1) the solution can not be analytical at  $\Delta U = 0$ , and some matching conditions should be added at these points, at least for figure 3 where the front and tail of the impulse meet at some point.
3. For sec.6 where a continuous “rod” is considered. Since the numerical discretization ( $\Delta x = 1$ ) is the same as for the previous mass-spring model is used, what is the real difference between the two models? No surprise that in figs. 7 and 8 the results are identical.
4. Finally, what is the main physical result of this article? It is obvious that if the front propagates faster, the pulse is elongated (Fig. 2) and vice versa (fig.3). Can the authors add at least one physical system with specific estimates as an example?
5. In its present version, the paper rather looks as a numerical exercise. If it is intended to be published as a full-fledged paper, I can not recommend it for NPG in this form.