REVIEWS ON THE MANUSCRIPT [16]

Reviewer 1:

Introduction:
The work suggests that spaghetti is more probable to break in a point where the bending waves constructively interfere. What is the source for this assumption? Add a reference or justify the assumption.

«We include term that describes two different kinds of friction». What kinds of friction exactly?

Theoretical model:
Consider writing down the Kirchoff's equation that you cite.
Formulae are unclear because of very low resolution in pdf. Improve the formulae.

Parameters for theory:
«s is cross section of spaghetti, r is radius of spaghetti». Cross section and radius are linked. It is the same parameter. Put pi*r^2 everywhere.

«Bending damping was measured from video using our own video analyzing software. We took a video of a few periods of the spaghetti». Describe the essential experimental details. What experiment have you performed? Have you oscillated your spagetti or displaced one end of spagetti from initial point for a certain distance, while another one was attached? It is so far unclear.

Experiment:
Put an image of falling spaghetti while impacting with a surface and show the angle you have measured and the curvature.

Recommendations:
The manuscprit is well prepared. To clarify the theoretical details and the computer model write down the equations, with initial and boundary conditions, as used in the calculations. Upon these clarifications, the manuscript may be recommended for publication.

Reviewer 2:

Elaborate on what factors drive the critical curvature in breaking spaghettis.

Give some more data on intermediate results of your simulation (e.g. the critical curvature) in order to improve the traceability of your results.

Explain the experiments you undertook to find the input parameters for your simulation (Young’s Modulus, damping, stiffness, etc.)

Re-write the formulae you use as they are hardly legible in the current form.

Your uncertainty in Figure 2 is very high. Please elaborate on what drives the uncertainty of a probability in this case (as opposed to a “normal” Gaussian deviation.)

Why do you assume that speed is perpendicular to length? Please elaborate on that.

Please always indicate between what your angles are defined.

Why does you simulation predict decreasing probability of breaking with increasing velocity for some angles around 60° whilst not for higher angles? Why is slipping maximal for this angle?

Did you observe that spaghetti, especially for flat angles with the surface, break at their first impact with the floor or rather with a later impact?

Consider adding the code for your simulation as an appendix, if it is not excessively long.

The manuscript has the potential to be published.

Reviewer 3:

The structure is OK.

The paper is well presented with interesting numerical values.

I recommend this paper.