Discussion on paper *ArXive:* cond-mat/0611613

i.e. Coherent behavior of balls in a vibrated box

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Abstract :

Testimony #1 was produced to "la Cour administrative d'Appel" in Paris; so the following correspondence is no more private but open to anybody and can be used by anybody refereeing to it. We discuss here a paper open to discussion in ArXive, speaking about coherent behaviour of balls forming a quite low density gas.

Pacs # : 5.40 ; 45.70 ; 62.20 ; 83.70.Fn

Paper [1] was sent for peer reviewing and publication in different Journals, as Phys. Rev. E. It was rejected after the process. The colleague in charge of the editing project was Y. Garrabos. I did not keep the discussions with the referees of the different journals, nor I submit them to CAA [2,3]. So I cannot present them now.

Anyhow I consider the paper [1] as correct scientifically; further it contains new report.

An additional point to remark is that experiments were performed after the simulations published in [4]. In [4] the Figures linked to simulations exhibit rapid motions of the ball. They correspond to this coherent motion, with collisions with walls in phase with the box motion! This is not discussed in [4], because I have not seen the phenomenon at first sight. This appears evident after viewing the experimental film!

Of course, I am ready to answer other questions. And I did not consider the objections as important scientifically.

References:

[1] Y.Garrabos, P. Evesque, F.Palencia C. Lecoutre-Chabot & D.Beysens, Maxwell Coherent behavior of balls in a vibrated box l bifurcation, *ArXive:* cond-mat/0611613

[2] http://defense-pierre-evesque.over-blog.com/; [3bis] 2ème réponse au CNRS (27/4/2016) via la Cour Administrative d'Appel de Paris (http://www.poudres-et-grains.eu/datas/suite_affaire_2/3rr-mem-22.4.16-CAA.pdf) which makes public the private peer-reviewing correspondence.

[3] http://poudres-et-grains.eu/datas/temoignages/Temoig-1_editionsCL-23-6-11.pdf , pp. 124-134

[4] P.Evesque, The thermodynamics of a single bead in a vibrated container, *Poudres & Grains* **12**.2, 17-42 (2001)

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