

Abstract Submitted
for the DFD09 Meeting of
The American Physical Society

Sky dancer: an intermittent system ANNE CROS, JESSE ALEXANDER RODRÍGUEZ ROMERO, OSCAR DAMIÁN DÍAZ ANDRADE, Universidad de Guadalajara — Sky dancers attract people sight to make advertising. What is the origin of those large vertical tubes fluctuations above an air blower? This study complements the previous one [1] about the system analysis from a dynamical system point of view. As a difference from the “garden hose-instability” [2], the tube shape has got “break points”. Those “break points” separate the air-filled bottom tube portion from its deflated top portion. We record the tube dynamics with a high-speed videocamera simultaneously that we measure the pressure at the air blower exit. The intermittent pressure evolution displays picks when the tube fluctuates. We compare those overpressure values with the ones that appears in a rigid tube whose exit is partially obstructed. [1] F. Castillo Flores & A. Cros “Transition to chaos of a vertical collapsible tube conveying air flow” *J. Phys.: Conf. Ser.* **166**, 012017 (2009). [2] A. S. Greenwald & J. Dungundji “Static and dynamic instabilities of a propellant line” *MIT Aeroelastic and Structures Research Lab, AFOSR Sci. Report: AFOSR 67-1395* (1967).

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Date submitted: 11 Aug 2009

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