2D Granular Collapse: Experiments and Discrete Element Modelling LAURENT LACAZE, JEREMY PHILLIPS, RICHARD KERSWELL, University of Bristol — We will discuss the 2D finite-time collapse under gravity of a monodisperse granular column which is one particle deep. Both laboratory experiments and discrete element modelling of such a configuration have been carried out. The final shape of the granular pile – in particular the final height and the typical runout in the spreading direction - is investigated as a function of the initial aspect ratio a = H/W of the granular column (H being the initial height and W the initial length of the column in the spreading direction). Very good agreement is found between the numerical simulations and experimental data opening up the possibility of examining the dynamics of this fascinating transient flow in detail.

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