

Abstract Submitted  
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**Multiple Memories in an Anisotropic Swelling System**<sup>1</sup> MAX VARVERAKIS, HILARY JACKS<sup>2</sup>, California Polytechnic State University, San Luis Obispo — SwellPy simulates a 2D system of disordered particles in which the particles can expand and repel away from overlapping neighbors; by applying this swelling operation multiple times, we are able to write information into the system as a memory that can be accessed at a later time. Our recent work applies anisotropy to the system to increase its memory capacity by a factor of 2 relative to the more standard isotropic system. This increased memory capacity may be generalizable to systems in higher dimensions.

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Max Varverakis  
California Polytechnic State University, San Luis Obispo

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