



Dan S. Reznik

Uncovering Beautiful Poncelet Phenomena as a Simulation Engineer

In this informal talk, I will describe how I have applied my background in computer simulation – mostly in robotics – to experiment with the dynamic geometry of Poncelet polygons, uncovering some interesting phenomena. Helped by several patient and generous mathematicians, this work has yielded some forty journal articles. I will also demonstrate our web-based Poncelet experimentation app – <https://dan-reznik.github.io/ellipse-mounted-loci-p5js> – and our YouTube channel – <https://www.youtube.com/@dreznik> – with hundreds of experiments, many of which are still unproved.