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Using the Topological Panorama Camera to Observe a Geometry of Relative Motion JANET GELPHMAN, None, THERESA OVERALL, University of Maine at Farmington — Physicists have discovered many properties of wavemotion through and with a slit. Observing relative motion through the slit or line of pixels of the Topological Panorama Camera (Topocam) reveals a process to create or describe geometry. A demonstration of the process includes: as the Topocam slit accelerates past a row of circles, the circles are transformed in the image into varying shaped ellipses dependent upon the continuous change in velocity. Abstracting this process into a mathematical form produces the Geometry of Relative Motion (GRM). During the presentation, we will describe how the Topocam works, display examples of its images and the geometry created by observing relative motion and discuss properties and transformations of GRM.

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