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In the Blink of an Eye: Seeing Mathematics through High-Speed Imagery MICHAEL SOSTARECZ, Monmouth College — In this talk, we share how high-speed imagery can be used to illustrate mathematical concepts in the classroom and serve as the inspiration for student projects in mathematical modeling. Through comparisons with analytic solutions or numerical simulations of differential equations, we are able to see when a model is an accurate description of the experiment or if revisions to the model need to take place. Examples will be drawn from experiments in projectile motion, harmonic oscillators, and fluid dynamics.

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