Testing Algorithms for the Automated Tracking of Objects in Videos[1] SCHAAR MAXIMILIAN, CALVIN BERGGREN, Texas Lutheran University — Computer science is a useful tool in computational physics which allows physicists to perform many computations in a short amount of time. The application of computer science allowed a multitude of tests to be created for videos that demonstrate an algorithm's ability to track the position of an object in motion in a variety of conditions. This video library and associated tests are essential in finding out the strengths and weaknesses of each algorithm. Code was also written to enable all the tests to be applied with as little user input as possible. Fast, efficient, and informative testing is important to be able to refine existing algorithms and explore new algorithms. The results for two algorithms are shown to represent how the video library can demonstrate algorithm performance and determine how these algorithms compare to each other.

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