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**Minsung Kim** (kimminsung@wustl.edu) and **Richard Kyung\*** (nycrick@gmail.com). *A New Transformation Method to Solve Eigenvalue Problems.*

This paper examines the efficiency of numerical optimization algorithms on solving eigenvalue problems. Using a classical mathematics method, most of the general eigenvalue problems, using optimal eigenvalues, cannot compute the exact closed-form solutions. As a result, alternative algorithms that use a numerical iteration method, must be examined in order to produce the desired dynamic characteristics. Through an analysis of the improved algorithm, its reduced degree of freedom of a system allows for practical usefulness and relative easiness in solving eigenvalue problems. (Received January 18, 2017)