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**Francine F. Abeles\*** (fabeles@kean.edu), 1000 Morris Avenue, Union, NJ 07083. *The Historical and Mathematical Development of Dodgson Condensation As an Experimental Method.*

Dodgson's condensation method has become a powerful tool in the automation of determinant evaluations. In this expository paper I describe its 19th century roots and the major steps on the path that began in the 20th century when the iteration of an identity derived by Dodgson first was studied, including its role in the discovery of the alternating sign matrix conjecture, the evaluation of an important 19th century determinant in partition theory as well as a combinatorial proof of it. I then discuss additional developments that have led the way to its use in modern experimental mathematics. (Received December 13, 2007)