1127-37-368   **Mary Elizabeth Wilkerson*** (`mwilkerso@coastal.edu`), Mathematics and Statistics
Department, Coastal Carolina University, PO Box 261954, Conway, SC 29528-6054. *Obtaining
rational maps from quadratic matings using Thurston's algorithm.*

Results of Lei, Rees, and Shishikura give a fast parameter test to determine when the mating of two postcritically finite quadratic polynomials is a rational map. We build upon the Medusa algorithm to present an iterative method that utilizes finite subdivision rules and Thurston's algorithm to approximate this rational map. We discuss the theoretical basis for the algorithm, issues concerning implementation, and examples generated with this technique. (Received February 07, 2017)