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Nathan C. Ryan* (nathan.ryan@bucknell.edu) and **David W. Farmer.** *Evaluating
L-functions with few known coefficients.*

We address the problem of evaluating an L-function; in particular we are interested in finding the first few zeros of an L-function when only a small number of Dirichlet coefficients are known. We use the approximate functional equation in a new way and find that it is possible to evaluate the L-function more precisely than one would expect from the standard approach. The method, however, requires considerably more computational effort to achieve a given accuracy than would be required if more Dirichlet coefficients were available. (Received August 27, 2012)