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**T. M. Dunster\*** ([mdunster@mail.sdsu.edu](mailto:mdunster@mail.sdsu.edu)), Department of Mathematics and Statistics,  
College of Sciences, San Diego State University, San Diego, CA 92182-7720. *On the asymptotics of  
Airy functions and their zeros.*

Asymptotic expansions for Airy functions and their zeros are well known, and have a multitude of applications. Here we present new forms of expansions for these functions, and use these to study their zeros. In particular, we obtain explicit representations for the coefficients in the asymptotic expansions of their zeros, and also derive explicit error bounds for these expansions. As a consequence we verify the main aspects of the Fabijonas-Olver conjecture (SIAM Review, 41, (1999), 762-773). (Received September 18, 2017)