1116-33-1641 Mohammad Salmassi* (msalmassi@framingham.edu), Department of Mathematics, Framingham State University, Framingham, MA 01602, and Ed Merkes, Department of Mathematics, University of Cincinnati, Cincinnati, OH 45221. Univalent solutions of a second order differential equation. Preliminary report.

We discuss univalence of special solutions of the differential equation y''+w(z)y = 0 in complex domain. This permits us to establish in a new way the radius of univalence of the Airy function Ai(z). In an earlier paper which appeared in the journal Complex Variables, we used the infinite product representation of Ai(z) to prove that the radius of univalence of Ai(z) is the distance of the nearest zero of Ai'(z) to the origin. (Received September 20, 2015)