Electronic Transactions on Numerical Analysis. Volume 8, 1999, pp. 15-20. Copyright © 1999, Kent State University. ISSN 1068-9613.



ON GERŠGORIN-TYPE PROBLEMS AND OVALS OF CASSINI *

RICHARD S. VARGA † AND ALAN KRAUTSTENGL ‡

Abstract. Recently, two Geršgorin-type matrix questions were raised. These are answered here, using ovals of Cassini

Key words. Geršgorin circle theorem, ovals of Cassini.

AMS subject classification. 15A18.

^{*} Received March 30, 1998. Accepted for publication August 13, 1998. Recommended by V. Mehrmann.

[†] Institute for Computational Mathematics, Department of Mathematics and Computer Science, Kent State University, Kent, Ohio 44242 (U.S.A.) (varga@msc.kent.edu). This research supported by National Science Foundation Grant DMS-9707359.

 $^{^\}ddagger$ Department of Mathematics, Case Western Reserve University. 10900 Euclid Ave., Cleveland, OH 44106 (U.S.A.) (axk66@po.cwru.edu) .