1145-VQ-1589 Rachid Marsli* (rmarsliz@kfupm.edu.sa). New sights on the location theory of matrix eigenvalues.

A new concept, called "Gershgorin disc of the second type", has been recently introduced by Frank J. Hall and Rachid Marsli in their article titled "On the Location of Eigenvalues of Real Matrices". (Electronic Journal of Linear Algebra, 2017). The author gives the definition of the concept and discusses how it was obtained and how it can be used to improve the location of eigenvalues of some important type of matrices such as real stochastic and Laplacian matrices. (Received September 23, 2018)