SURVEY and REVIEW

It is a safe bet that most readers use matrices in their work. It is often of interest to check whether all the eigenvalues of a given matrix A lie in a region $\mathfrak{D}$ of the complex plane. The origin is an asymptotically stable equilibrium of the linear system $(d/dt)x = Ax$ if and only if the eigenvalues of A are located in the open left half-plane. Similarly, the convergence of many iterative procedures is determined by investigating whether the eigenvalues of the iteration matrix lie in the open unit disk. In some applications one has to consider perturbations of the form $A + D$, AD, or DA, for D ranging in a relevant family of matrices, and it is demanded that the eigenvalues stay in $\mathfrak{D}$ after perturbation. This kind of linear algebra problem appears in many application fields, including control theory, economics, and mathematical biology, and, accordingly, the corresponding research is scattered over many different specialized journals. The Survey and Review paper in this issue, "Unifying Matrix Stability Concepts with a View to Applications," by Olga Y. Kushel, systematizes the extensive available literature and gives a historical perspective. With more than 250 references it will be useful to all users of matrices.

J. M. Sanz-Serna
Section Editor
jmsanzserna@gmail.com