The study of eigenvalues and eigenvectors of matrices depending on parameters has many important applications. If an $m \times m$ complex matrix depending on $n$ real parameters $p \in \mathbb{R}^n$ has an eigenvalue of algebraic multiplicity 2 at $p_0$, then $p_0$ is said to be a diabolic point (DP) or exceptional point (EP) according to whether the geometric multiplicity is 2 or 1 respectively (although the former is more exceptional than the latter: they have codimension 6 and 2, respectively).


Reviewed by D. R. J. Chillingworth

© Copyright American Mathematical Society 2005