

1086-47-1435

**Stephan Ramon Garcia\*** ([stephan.garcia@pomona.edu](mailto:stephan.garcia@pomona.edu)), Department of Mathematics,  
Pomona College, 610 N. College, Claremont, CA 91711. *Recent progress on complex symmetric operators.*

An operator  $T$  in  $B(\mathcal{H})$  is a *complex symmetric operator* (CSO) if there exists a conjugate-linear, isometric, involution  $C$  such that  $T = CT^*C$ . This class is surprisingly large and contains, for instance, normal operators, Hankel operators, the Volterra integration operator, truncated Toeplitz operators, and many other examples. A number of years ago, Garcia and Wogen asked whether or not the set of all CSOs on an infinite-dimensional Hilbert space is closed in the operator norm. Recently, two very different solutions to this problem have emerged (by Garcia-Poore and Zhu-Ji-Li). We discuss these results and some of their implications, along with a rather surprising result about the “indestructibility” of certain nilpotent operators. (Received September 21, 2012)