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**Samir Raouafi\*** ([szr0067@auburn.edu](mailto:szr0067@auburn.edu)), Department of Mathematics and Statistics, Auburn University, 221 Parker Hall, Auburn, AL 36849. *Operators with minimal pseudospectra and connections to normality.*

Normal operators are well understood in operator theory because the spectral theorem holds for them. Several mathematicians have therefore paid attention to investigate some conditions under which certain operators or matrices are normal. It is well-known that normal operators have minimal pseudospectra and the converse is not valid in general. In this talk, we shall discuss some new characterizations of the normality of certain operators in terms of only one pseudospectrum. We will also examine the class of non-normal operators with minimal pseudospectra and derive some applications to the numerical range. (Received September 15, 2019)