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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. *Some Extension of the Kreiss Matrix Theorem.*

Let  $A$  be a matrix with spectrum  $\sigma(A)$ . The Kreiss Matrix Theorem, a well-known fact in applied matrix analysis, gives estimates of upper bounds for  $\|A^n\|$  if  $\sigma(A)$  is in the unit disc, or for  $\|e^{tA}\|$  if  $\sigma(A)$  is in the left-half plane based on the resolvent norm. In this talk, we shall discuss some extension of this celebrated theorem to arbitrary analytic functions on general complex domains. (Received September 24, 2018)