1145-11-1271 **Niven T Achenjang*** (nachenjang@gmail.com), P.O. Box 13884, Stanford, CA 94309, and **Aaron Berger**. *On Gaps in the Closures of Images of Divisor Functions.*

Given a complex number c, define the divisor function $\sigma_c : \mathbb{N} \to \mathbb{C}$ by $\sigma_c(n) = \sum_{d|n} d^c$. In this paper, we look at $\overline{\sigma_{-r}(\mathbb{N})}$, the topological closures of the image of σ_{-r}, when $r > 1$. We exhibit new lower bounds on the number of connected components of $\overline{\sigma_{-r}(\mathbb{N})}$, bringing this bound from linear in r to exponential. Finally, we discuss the general structure of gaps of $\overline{\sigma_{-r}(\mathbb{N})}$ in order to work towards a possible monotonicity result. (Received September 20, 2018)