

1154-VS-2814      **Sky Pelletier Waterpeace\***, Mathematics Department, Rowan University, 201 Mullica Hill Rd,  
Glassboro, NJ 08028. *A Novel Generating Function for a Parametrized Family of Möbius-like  
Arithmetic Functions Related to the Riemann  $\zeta$  Function.*

We introduce a generating function for a novel generalized Möbius  $\mu$  function defined in terms of partial sums of geometric series in  $\frac{1}{p^s}$  and  $-\frac{1}{p^s}$ , and others, for primes  $p$ , and for complex  $s = \sigma + it$ , where  $\sigma, t \in \mathbb{R}$ , as usual. The standard Möbius  $\mu(n)$  and Liouville  $\lambda(n)$  functions are seen to be special cases of the general function. (Received September 18, 2019)