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**Elizabeth M. Reid\*** (emreid2@buffalo.edu) and **Thomas Cusick**. *Permutations between cubic 2-rotation symmetric Boolean functions.*

A Boolean function in  $n$  variables is 2-rotation symmetric if it is invariant under even powers of the cyclic permutation  $\rho(x_1, \dots, x_n) = (x_2, \dots, x_n, x_1)$  of the variables, but not under the first power. We call such a function a 2-function. A 2-function is said to be monomial rotation symmetric (MRS) if it is generated by applying powers of  $\rho^2$  to a single monomial. In 2014 Cusick and Johns developed the theory of cubic MRS 2-functions in  $2n$  variables generated by a monomial  $x_1x_rx_s$  with  $1 < r < s$  and  $r$  and  $s$  not both odd. They gave a complete description of the affine equivalence classes for these functions. In 2017, Cusick and Reid determined the smallest set of permutations that act on the set of all these cubic MRS 2-functions to give the affine equivalence classes. Here, we develop the theory further by giving a complete description of permutations between two equivalent cubic MRS 2-functions and an exact count of their number. (Received September 25, 2017)