

1158-33-377

Jane McDougall*, Dept of Math and Computer Science, Colorado College, 14 E Cache La poudre, Colorado Springs, CO 80904. *Hypergeometric functions, their symmetries, and applications to harmonic mappings.*

We consider modifications of power functions z and z^{n-1} which include factors that are ${}_2F_1$ Gauss hypergeometric functions. The particular pairs of functions studied here become “affine rotations” of one another and also possess reflectional symmetry. Moreover they can be utilized to form new examples of univalent harmonic functions (harmonic mappings). In this talk we explore these pairs of ${}_2F_1$ functions and describe conditions under which they lead to new harmonic mappings, and even new minimal surfaces. (Received March 04, 2020)