

**Convolutions of harmonic convex functions**

**M. Dorff, M. Nowak**

U.S., Provo, mdorff@math.byu.edu

Poland, Lublin, nowakm@golem.umcs.lublin.pl

Ruscheweyh and Sheil-Small proved that convexity is preserved under the convolution of univalent analytic mappings in  $K$ . However, when we consider the convolution of univalent harmonic convex mappings in  $K_H^O$ , this property does not hold. In fact, such convolutions may not be univalent. We establish some results concerning the convolution of univalent harmonic convex mappings.