1125-30-590   **Michael Dorff*** (`mdorff@math.byu.edu`), **Samaneh Hamidi**, **Jay Jahangiri** and **Elif Yasar**.
Convolutions of univalent harmonic strip mappings.

Complex-valued harmonic mappings can be regarded as generalizations of analytic functions and are related to minimal surfaces that are beautiful geometric shapes with intriguing properties. In this talk we discuss some results concerning the preservation of the property of univalency (or one-to-oneness) when combining two harmonic mappings through convolutions or Hadamard products. In particular, let f_k (where $k = 1, 2$) be univalent harmonic functions that are shears of the analytic map $h_k - g_k = \frac{1}{2} \ln \left(\frac{1+z}{1-z} \right)$ with dilatation $\omega_k = e^{i\theta_k} z^k$. If the convolution $f_1 * f_2$ is locally one-to-one and sense-preserving, then $f_1 * f_2 \in S_H^O$ is convex in the direction of the real axis and hence univalent. (Received September 07, 2016)