1116-05-1773   **Melody Chan**, **Darren Glass**, **Matthew Macauley**, **David Perkinson*** (`davidp@reed.edu`), **Caryn Werner** and **Qiaoyu Yang**. *Sandpiles, spanning trees, and plane duality.*

The sandpile or critical group of a graph G is an associated finite group whose order is the number of spanning trees of G. Holroyd et al. used a dynamical process known as rotor-routing to define a simply transitive action of the sandpile group of G on its set of spanning trees.

It is well-known that if G is planar, its set of spanning trees are in canonical bijection with those of its planar dual G^* and furthermore that the sandpile groups of G and G^* are isomorphic. Thus, one can ask: are the two rotor-routing actions, of the sandpile group of G on its spanning trees, and of the sandpile group of G^* on its spanning trees, compatible under plane duality? We give an affirmative answer to this question, which had been conjectured by Matthew Baker. (Received September 21, 2015)