1150-37-312 **Annina Iseli*** (annina.iseli@math.ucla.edu). *Thurston Maps with four post-critical points.*

A Thurston map is a branched covering map of the two-sphere whose postcritical set is finite. If a Thurston map is expanding, its dynamics induces a sequence of finer and finer tilings of the sphere and thereby yields a (possibly fractal) metric on the sphere. A result of Haïssinsky-Pilgrim (2009) and Bonk-Meyer (2017) relates the geometric properties of the induced metric to the analytic properties of the Thurston map. Namely, it states that the induced metric is quasisymmetrically equivalent to the chordal metric if and only if the expanding Thurston map is topologically conjugate to a rational map of the Riemann sphere. This result is particularly interesting in light of Thurston's characterization (1980ies) of rational maps in terms of Thurston obstructions.

After recalling the concepts and results mentioned above, we consider a specific family of expanding Thurston maps with four postcritical points that arises from Schwarz reflections on flapped pillows. We show that a Thurston map in this family is conjugate to a rational map if and only if the gluing of the flaps satisfies a certain symmetry condition. It is hoped that this result provides more insight into the combinatorial characterization of postcritically-finite rational maps. (Received July 12, 2019)