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Isabel Hubard*, isahubard@im.unam.mx, and **Elías Mochán** and **Antonio Montero**. *Voltage operations, part 1*. Preliminary report.

Given a maniplex (map or abstract polytope), can we do some operation on it, so that the result has some prescribed symmetry? For example, for non-self dual maps, taking its medial will give us a two-orbit map with 2 orbits of faces. Although we cannot solve this question, in an attempt at it, we have defined *voltage operations* on maniplexes and polytopes. In this talk I will review some basic notions of voltage graphs in order to give the definition of a voltage operation. We will then view some examples and show a couple of basic but interesting results on them.

This is work with Elías Mochán and Antonio Montero (Received January 25, 2022)