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Gabe Cunningham and **Mark Mixer***, 550 Huntington Ave, Boston, MA 02115. *Internal and external duality in abstract polytopes.*

An abstract regular polytope is internally self-dual if its self-duality can be realized as one of its symmetries. This property has many interesting implications on the structure of the polytope.

We will discuss the implications of a structure being internally self-dual, and prove the existence of many different types of internally self-dual polyhedra, as well as polytopes in higher ranks. (Received February 04, 2017)