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**Federico Castillo\*** (fcastillo@ucdavis.edu), One Shields Ave., Davis, CA 95616. *Deformation cones for polytopes.*

Given a lattice polytope, the set of all polytopes having the same (or a coarsening) normal fan is a polyhedral cone. This cone has appeared in different contexts, for instance, it is closely related to the nef cone of the associated toric variety. In the case of the regular permutohedron we get the cone of submodular functions. The purpose of this talk is to survey known results and show how to compute this deformation cones in further combinatorial examples. This is joint work with Fu liu and Federico Ardila. (Received July 18, 2017)