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Luis Pereira* (luisalexandreperreira@outlook.com), 1120 Welbek Drive, South Bend, IN 46637. *Genuine Equivariant Operads.*

A fundamental result in equivariant homotopy theory due to Elmendorf states that the homotopy theory of G -spaces, with w.e.s measured on all fixed points, is equivalent to the homotopy theory of G -coefficient systems in spaces, with w.e.s measured at each level of the system. Furthermore, Elmendorf's result is rather robust: analogue results can be shown to hold for, among others, the categories of (topological) categories and operads. However, it has been known for some time that in the G -operad case such a result does not capture the "correct" notion of weak equivalence, a fact made particularly clear in work of Blumberg and Hill discussing a whole lattice of "commutative operads with only some norms" that are not distinguished at all by the notion of w.e. suggested above. In this talk I will talk about part of a joint project which aims at providing a more diagrammatic understanding of Blumberg and Hill's work using a notion of G -trees, which are a generalization of the trees of Cisinski-Moerdijk-Weiss. More specifically, I will describe a new algebraic structure, which we dub a "genuine equivariant operad", which naturally arises from the study of G -trees and which allows us to state the "correct" analogue of Elmendorf's theorem for G -operads. (Received January 21, 2018)