

Título: L-infinity algebras, cohomology and M-theory

Resumen: In this introduction for topologists, we explain the role that extensions of L-infinity algebras by taking homotopy fibers plays in physics. This first appeared with the work of physicists D'Auria and Frein 1982, but is beautifully captured by the "brane bouquet" of Fiorenza, Sati and Schreiber which shows how physical objects such as "strings", "D-branes" and "M-branes" can be classified by taking successive homotopy fibers of an especially simple L-infinity algebra called the "supertranslation algebra". We then conclude by describing our joint work with Schreiber where we build the brane bouquet out of the homotopy theory of an even simpler L-infinity algebra called the "superpoint".