1154-55-1981 **Safia Chettih***, chettihs@southwestern.edu, and **L Bonatto**, **A Linton**, **S Raynor**, **M Roberston** and **N Wahl**. *A combinatorial model for an honest ∞-operad.* Preliminary report.

The natural definition of gluing on metric Sullivan diagrams is not associative on the nose, but we expect it to be associative up to all higher homotopies. This suggests that metric Sullivan diagrams, together with the structure induced by gluing, should form an ∞-prop of some sort. We approach the problem through the cacti operad; as a space, cacti include into metric admissible fat graphs, of which metric Sullivan diagrams are a quotient. We describe an ∞-operad inspired by the cacti operad, as well as work towards promoting this construction to an ∞-prop. (Received September 17, 2019)