

1021-57-201 **Rachel Schwell*** (rschwell@hotmail.com), 40 Bolivia St. #2, Willimantic, CT 06226. *Solving the A_∞ -Deligne Conjecture with Polytopes.*

We show how an explicit realization of Stasheff's associahedra and cyclohedra in terms of trees with height leads to a solution of the A_∞ version of Deligne's conjecture on the Hochschild complex. The new realizations are not convex, but are rather PL. We mention how these results fit into the framework of the arc operad. (Received September 05, 2006)