Title: Polytopes from painted trees and fan graph tubings

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Abstract:

We review a species composition of planar binary trees and leveled trees, first described by Forcey, Lauve and Sottile. Extended to non-binary trees the types of objects here form a poset that turns out to be isomorphic to the face poset of a family of graph associahedra. The latter polytopes are realizations of the poset of tubings on the fan graphs. We conjecture a new realization of these polytopes that is of the same dimension as the space it lies in. If time permits we will mention the conjectured lattice of the vertices of these polytopes and a connection to the pairahedra.