

The tomatope

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Abstract

Every abstract 3-polytope M , in particular, every polyhedral map, has a unique minimal regular cover, and the automorphism group of this cover is isomorphic to the monodromy group of M . Here we demonstrate that the situation for polytopes of higher rank must be very different: the tomatope T is a small, highly involved, abstract uniform 4-polytope. It has infinitely many distinct minimal regular covers.

Povzetek

Vsak abstrakten 3-politop M , v posebnem primeru vsak poliederski zamljevid, ima enolično določen minimalen regularen krov, katerega grupa avtomorfizmov je izomorfna monodromski grupi politopa M . Tukaj predstavimo, da je situacija za politope višjega ranga precej drugačna: tomatop T je majhen, močno prisoten, abstrakten, enovit 4-politop, ki ima neskončno mnogo minimalnih regularnih krovov.