

The antiprism of an abstract polytope*

Ian Gleason

Univeristy of California, Berkeley, United States

Isabel Hubard † 

*Instituto de Matemáticas, Universidad Nacional Autonoma de México,
Circuito Exterior, C.U. Coyoacán 04510, México D.F.*

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Abstract

Antiprisms of polygons are classical convex vertex-transitive polyhedra. In this paper, for any given (abstract) polytope, we define its *antiprism*. We then find the automorphism group of the antiprism of \mathcal{P} in terms of the extended group of \mathcal{P} (the groups of automorphisms and dualities) as well as some transitivity properties. We also give a relation between some products of abstract polytopes and their antiprisms.

Keywords: Antiprism, abstract polytopes.

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†Corresponding author.

E-mail addresses: ianandregif@gmail.com (Ian Gleason), isahubard@im.unam.mx (Isabel Hubard)

Antiprizma abstraktnega politopa*

Ian Gleason

Univeristy of California, Berkeley, United States

Isabel Hubard † 

*Instituto de Matemáticas, Universidad Nacional Autónoma de México,
Circuito Exterior, C.U. Coyoacán 04510, México D.F.*

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Povzetek

Antiprizme poligonov so klasični primeri konveksnih točkovno tranzitivnih poliedrov. V tem članku definiramo *antiprizmo* za poljuben (abstrakten) politop. Nato določimo grupo avtomorfizmov antiprizme politopa \mathcal{P} v smislu razširjene grupe politopa \mathcal{P} (grupe avtomorfizmov in dualnosti), pa tudi nekaj tranzitivnostnih lastnosti. Podamo še zvezo med nekaterimi produkti abstraktnih politopov in njihovih antiprizem.

Ključne besede: Antiprizma, abstraktni politopi.

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†Kontaktni avtor.

E-poštna naslova: ianandreigf@gmail.com (Ian Gleason), isahubard@im.unam.mx (Isabel Hubard)