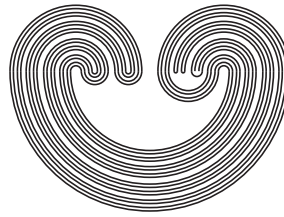


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## THE DETERMINATION OF CERTAIN HIGHER DERIVED FUNCTORS OF MOMENT ANGLE COMPLEXES

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**THE DETERMINATION OF CERTAIN HIGHER  
DERIVED FUNCTORS OF MOMENT ANGLE  
COMPLEXES**

DAVID ALLEN AND JOSÉ LA LUZ

**ABSTRACT.** Given an  $m$ -gon,  $P$ , for  $m \geq 4$  and the moment angle complex  $Z_P$ , we compute the first derived functor of the indecomposable functor,  $L_1Q(-)$  of the algebra  $H^*(Z_P)$ . As a consequence of this calculation and the work of Buchstaber, Panov and McGavaran, we compute the first derived functor of the indecomposable functor for  $H^*(\#_{k=3}^{m-1}(S^k \times S^{m+2-k})^{\sharp(k-2)} \binom{m-2}{k-1})$  and determine an upper bound for the rank of  $L_1Q(H^*(Z_P))$  by relying on the combinatorics.

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