

1023-55-1696

Risto Atanasov* (atanasov@math.binghamton.edu), Department of Mathematical Sciences, Binghamton University, Binghamton, NY 13902. *Local Conditions for a 2-dimensional Duality Group*. Preliminary report.

An n -dimensional simplicial complex Δ is Cohen-Macaulay if for any simplex σ of Δ , $\tilde{H}^i(lk(\sigma)) = 0$ for $i < \dim(lk(\sigma))$. If K is a finite aspherical Cohen-Macaulay complex whose fundamental group is G , we consider what further conditions on K are necessary to ensure that G is a duality group in the sense of Bieri-Eckmann. The talk will mainly be concerned with the case $n = 2$. (Received September 26, 2006)