

Fox Derivatives

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March 6, 2008

Abstract

If we start with a 2-dimensional CW-complex X , we may form the chain complex of the universal cover of X . The boundary maps for this exact chain complex can be obtained by a derivation, similar in many ways to that of calculus, known as the Reidemeister-Fox derivative (or simply Fox derivative, for short). We use the Fox derivative to compute the boundary maps for an interesting 2-complex X .