
JESUS GONZALEZ, CINVESTAV, A.P. 14-740, Mexico City, 07000

Formal groups and BP-homology of finite abelian groups of rank two

In their study of differential periodic transformations, Conner and Floyd realized the importance of understanding the global structure of manifolds admitting a group action without stationary points. They succeeded in giving a homotopy characterization, but could only determine the corresponding bordism ideal for the case of a finite elementary abelian p -group of rank two (soon after the general rank case was completed by Floyd). In this talk I address the (2-primary) “non-elementary” situation. Much of the information is derived through a sharp description of the (simultaneous) 2- and v_1 -divisibility properties of 2-typical formal groups. Although the geometric motivation is no longer valid, I discuss some applications to the motion planning and immersion problems for 2-torsion lens spaces.

This is joint work with Leticia Zárate.