

Initially regular sequences on cycles

Le Tran

Advisor: Dr. Louiza Fouli

Abstract: Let I be a homogeneous ideal in a polynomial ring R . Initially regular sequences on R/I are a type of sequence that behaves like regular sequences and whose length provides a lower bound for the depth of R/I . We discuss the notion of initially regular sequences on R/I and give an explicit description of an initially regular sequence of length equal to the depth of R/I , where I is the edge ideal of any cycle C_n , for $n \geq 3$.