



istanbul matematiksel bilimler merkezi  
istanbul center for mathematical sciences

# ALGORITHMS FOR ZERO DIMENSIONAL IDEALS

Hamid Rahkooy

University of Waterloo

## Abstract

Starting with Berlekamp-Massey's algorithm for finding recurrence relationships of a sequence, we present Sakata's generalization of this problem, related algorithms and our recent work. We use those algorithms in order to obtain a randomized primary decomposition algorithm for a zero dimensional ideal in polynomial rings. Some related computations on Gorenstein algebras will be presented.

**Date :** Monday, June 11, 2018

**Time:** 16:00

**Place:** IMBM Seminar Room, Boğaziçi University South Campus