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## Abstracts of Short Communications and Posters

### Section:

## 2. Algebra

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**Hilbert quasi-polynomial functions and generalized analytic spread**

The notion of analytic spread of an ideal which was introduced by Northcott and Rees in 1954 continues to play an important role in various questions of Commutative Algebra and Algebraic Geometry. Here we use the concept of quasi-polynomial function to extend a well known Theorem of Hilbert to positively graded finitely generated modules over a positively graded noetherian ring whose degree zero component is an artinian ring. As an application, we define a concept of analytic spread for noetherian filtrations which is shown to be of asymptotic nature. Results given here are part of a joint work with H. Dichi and are is to appear in J. Pure Appl. Algebra.