

Mathematics > Commutative Algebra

On the last Hilbert-Samuel coefficient of isolated singularities

Juan Elias

(Submitted on 3 Nov 2010)

In 1978 Lipman presented a proof of the existence of a desingularization for any excellent surface. The strategy of Lipman's proof is based on the finiteness of the number $H(R)$ defined as the supreme of the second Hilbert-Samuel coefficient I , where I range the set of normal m -primary ideals of a Noetherian complete local ring (R, m) . The problem studied in the paper is the extension of the result of Lipman on $H(R)$ to m -primary ideals I of a d -dimensional Cohen-Macaulay ring R such that the associated graded ring of R with respect to I^n is Cohen-Macaulay for $n \gg 0$.

Subjects: **Commutative Algebra (math.AC)**; Algebraic Geometry (math.AG)

Cite as: [arXiv:1011.0846v1](https://arxiv.org/abs/1011.0846v1) [math.AC]

Submission history

From: Juan Elias [[view email](#)]

[v1] Wed, 3 Nov 2010 11:05:27 GMT (11kb)

[Which authors of this paper are endorsers?](#)

Link back to: [arXiv](#), [form interface](#), [contact](#).

Download:

- [PDF](#)
- [PostScript](#)
- [Other formats](#)

Current browse context:

math.AC

[< prev](#) | [next >](#)

[new](#) | [recent](#) | [1011](#)

Change to browse by:

[math](#)

[math.AG](#)

References & Citations

- [NASA ADS](#)

Bookmark([what is this?](#))

