Belghitti-Gruson or Semple?

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Abstract

In this short conference, we want to make some advertising for two spaces one defined by Semple in [S], the other by Belghitti and Gruson in [B]. The the n-th Semple's tower over X is the smallest space where you can realize the set of all sequences of length n of Nash's blowing-ups of curves embedded in X. The n-th Belghitti-Gruson's space parametrizes the set of sequences of length n of blowing-ups centered at near closed points of X. The existence of such spaces is interesting by itself, and good descriptions (whatever it means) of them would be full of informations. The constructions of these spaces are *a priori* quite different. We show that, in fact, they are quite similar and closely related : they have the same Chow ring.

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