

## 東海大学理学部数学・情報数理談話会

以下の要領において談話会を開催致します。多数の方の御来聴をお待ち致しております。

日程	2015 年 6 月 3 日(水) 17:00 ~ 18:00
場所	東海大学湘南校舎 18 号館 8 階理学部ゼミ室 3 (18-831)
講演者	岸本崇氏 (埼玉大学理学部)
タイトル	<i>Cylinders in del Pezzo fibrations</i>

Abstract: Inspired by the question proposed by Flenner and Zaidenberg in 2003, which asks whether or not there exists an effective action of  $G_a$  on the affine cone  $x^3+y^3+z^3+u^3=0$  in  $A^4$ , some techniques to translate a cylinder in a given polarized variety into an effective  $G_a$ -action on the corresponding (generalized) affine cone are going to be developed. (In fact, Cheltsov-Park-Won have recently disproved such an action on the above mentioned affine cone over the cubic surface from the viewpoint of this translation combined with a concept of log-canonical threshold.) This is one of main motivations to justify our attempt to find cylinders in projective varieties, especially those found in Mori fiber spaces. In the previous work with Prokhorov and Zaidenberg, we have constructed some families of smooth Fano threefolds with Picard number one which contain cylinders. Meanwhile, in the present talk, I shall talk about cylinders in del Pezzo fibrations as another representative of Mori fiber spaces. The geometry of the generic fiber of a given del Pezzo fibration plays a crucial role for this purpose, and the result depends completely on the degree of a del Pezzo fibration. (The talk concerns a joint work with Adrien Dubouloz.)

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