

1037-14-35

Kyungyong Lee* (kyungl@umich.edu), 2082 East Hall, 530 Church Street, Department of Mathematics, Univ of Michigan, Ann Arbor, MI 48109. *On the principal components of Hilbert schemes of points.* Preliminary report.

When a Hilbert scheme of points is reducible, the principal (radical) component – the closure of the set parametrizing ideals of distinct points – is particularly interesting. It can be locally parametrized by determinants of certain matrices. However the equations for the component have been mysterious. Recently I discovered previously unknown elements in the defining ideals of interesting affine open subschemes of principal components. Surprisingly they are of very large degrees in the natural embeddings. (Received January 07, 2008)