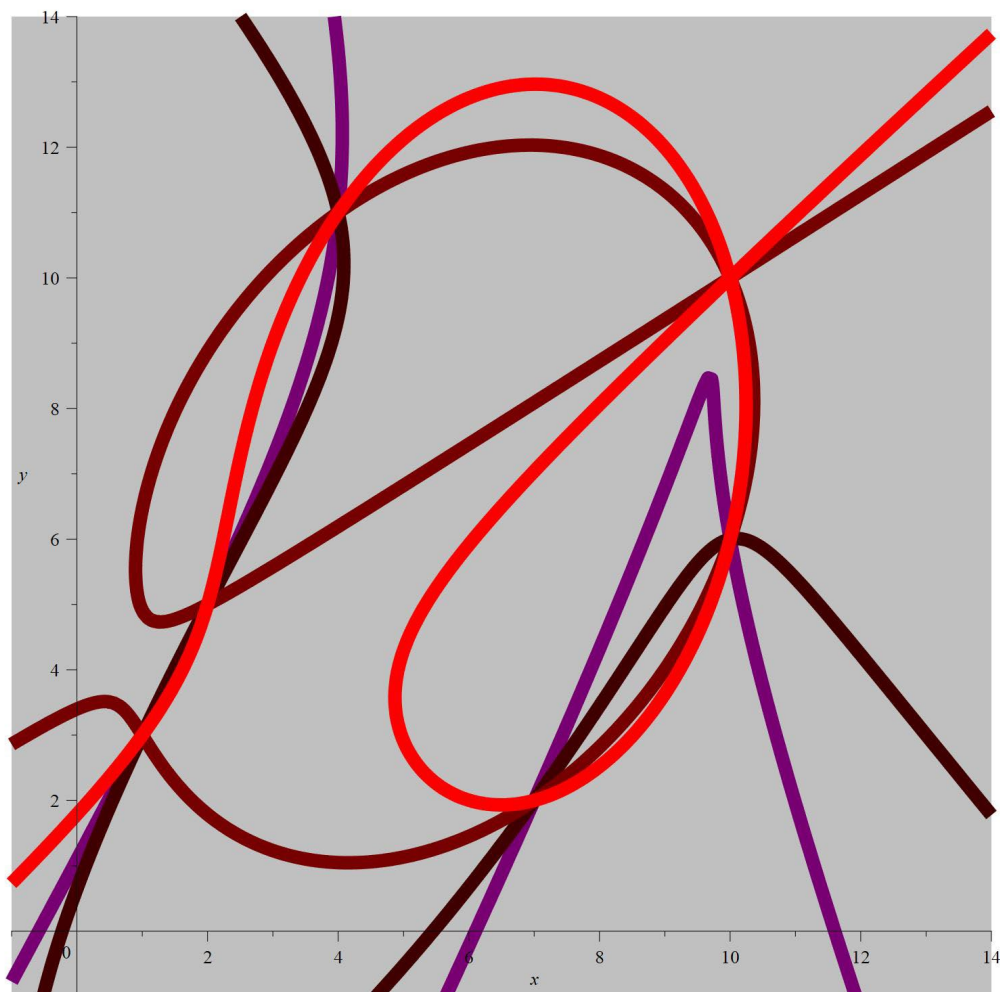# Degenerate pencil

Degenerate pencil does not support the ideals of pure geometry. Contemporary tendencies, such as application, are the result of political influence and moral decline at universities.

A referee of the paper [38] commented: "The cubic curves studied in this paper are birationally isomorphic to the projective line. In such a situation, it is not accurate to refer to the pencil's involution as the Manin transformation. It should at least be called a degenerated Manin transformation."

A "proper" cubic curve is an elliptic curve, see Elliptic curves. However, the cubic curves in this pencil (family) all have genus 0 instead of 1. This is because they all have a singular point, at (10,10) by construction.

For the red and brown curves, the singular point is clearly visible. Those curves intersect themselves in a crunode. For the purple and black curves, it is not clear that the point is on the curve, let alone that the point is singular. I will aim to clarify the situation in Real tip of complex icebergs.

38. P.H. van der Kamp, A new class of integrable maps of the plane: Manin transformations with involution curves, SIGMA 17 (2021), 067, 14 pages.