Characteristic \( p \) phenomena in affine geometry

MASAYOSHI MIYANISHI

Department of Mathematical Sciences
Kwansei Gakuin University
2-1 Gakuen
Sanda, Hyogo 669-1337
JAPAN

chx724080@ksc.kwansei.ac.jp

There are several pathological phenomena occurring in affine geometry in positive characteristic. We take up the forms of the affine line defined over the rational function field in one variable and consider deformations (or specializations) to produce interesting phenomena. The talk includes affine surfaces appearing as plane sandwiches, problem of Abhyankar–Moh about the affine line embedded in the affine plane, and Kawamata’s inequality of Kodaira dimensions.