

CMI Summerschool 2012 / Course Schicho

Exercises Part 2

Exercise 1. Give a definition of habitat – aka smooth variety with a sequence of hypersurfaces forming a normal crossing divisor – without points and open coverings.

Exercise 2. Analyse the effect of blowing ups along “coordinate subvarieties” on the combinatoric structure (i.e. the incidence relations of the divisors) of a habitat.

Exercise 3. Blowup the curve $(x, y, z) = (t^2, t, 0)$ in the habitat \mathbb{A}^3 with hypersurface sequence $(x = 0)$.