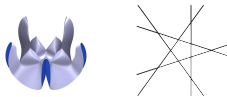


A Quintic with 15 Cusps

This surface of degree 5 (quintic) has 15 singularities of type A_2 (called cusps); this quintic and a series of related surfaces was given in an article from 2005 by Oliver Labs. Five of the cusps differ in look from the other ten. Indeed, the five are A_2^{++} singularities, the other A_2^{+-} (see the gallery on simple singularities for more info):



This surface has an equation of the form $S_5(x, y) + t(z) = 0$, where $S_5(x, y)$ is a regular pentagon (right picture) and $t(z)$ is a variant of the Tchebychev polynomials which we already mentioned several times.

Another quintic (left) with 15 cusps was constructed by Wolf Barth; it is related to the Clebsch Cubic (right) as one can see from the middle picture:

