

**Miret, J. M.; Xambó-Descamps, Sebastian**

**Geometry of complete cuspidal plane cubics.** (English) Zbl 0688.14050

Algebraic curves and projective geometry, Proc. Conf., Trento/Italy 1988, Lect. Notes Math. 1389, 195-234 (1989).

[For the entire collection see [Zbl 0667.00008](#).]

In his book “Kalkül der abzählenden Geometrie” (1879; reprint 1979; [Zbl 0417.51008](#)), *H. C. H. Schubert* discussed the enumerative theory of plane cuspidal cubics. Schubert’s calculations rely on the method of degenerations, i.e. boundary components of the space of complete cuspidal plane cubics. The authors give detailed discussion of this space (for an algebraically closed underlying field of characteristic  $\neq 2, 3$ ) and base upon this and other geometric results their enumerative computations. It turns out that there are 620 non-zero fundamental numbers, but only 391 of them were already given by Schubert.

[Unfortunately the reviewer has no access to a repeatedly quoted paper of the authors: “On Schubert’s degenerations of cuspidal cubics”, Preprint, Univ. Barcelona 1987.]

Reviewer: [H.Havlicek](#)

**MSC:**

[14N10](#) Enumerative problems (combinatorial problems) in algebraic geometry

[51N15](#) Projective analytic geometry

Cited in **5** Documents

**Keywords:**

enumerative theory of plane cuspidal cubics; fundamental numbers