

Variations on Bézout's Theorem

2h lecture, TU Berlin, SS 2019, Prof. P. Bürgisser

1. Bézout's Theorem
2. Kushnirenko's Theorem
3. Multihomogeneous Bézout
4. Mixed Volume
5. Bernstein's Theorem
6. Khovanskii's Fewnomial Bound
7. Sard's Theorem and Transversality
8. Coarea Formula
9. Poincaré's Formula
10. Degree and Volume

References

- Frank Sottile. *Real Solutions to Equations From Geometry*. University Lecture Series volume 57, AMS, 2011.
- Peter Bürgisser and Felipe Cucker. *Condition: The Geometry of Numerical Algorithms*, Springer Grundlehren 349, 2013.
- Gregorio Malajovich. Nonlinear Equations. 28o Colóquio Brasileiro de Matemática. Publicações de Matemática (IMPA, Rio de Janeiro, 2011).