



ODTU-Bilkent Algebraic Geometry

“Linear subspaces in algebraic varieties”

By

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Abstract: (partially joint with I. Itenberg and J. Ch. Ottem)

I will address several seemingly unrelated problems, such as the 64 lines in Schur’s quartic $x(x^3-y^3)=z(z^3-w^3)$, 72 tritangents to the plane sextic curve $x^6+y^6+z^6=10(x^3y^3+y^3z^3+z^3x^3)$, and 405 two-spaces in Fermat’s cubic four-fold $x_0^3+x_1^3+\dots+x_5^3=0$. The first problem is classical, whereas the two others are relatively new. I will state that the figures indicated are indeed the maxima for the respective problems, and then I will outline the proof (for the last two problems) using a reduction to the so-called Niemeier lattices.

Date: 25 October 2019, Friday

Time: 15:40 +

Place: Mathematics Seminar Room, SA- 141

Tea and cookie will be served before the talk. You are most cordially invited.