SEMINÁRIO DE GEOMETRIA ALGÉBRICA

Lines on hypersurfaces: beyond real and complex counts

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Resumo: Since our mathematical infancy, we have learned that complex cubic surfaces on the projective space have 27 lines. After that, we quickly learn how to get similar numbers for higher dimensional hypersurfaces. In this talk, we explore the problem of counting not complex lines, but lines defined over any field k. The ideas behind this come from the so-called A^1-enumerative geometry and from computations done for $k=\mathbb R$. We discuss the main difficulties and results obtained so far. This is joint work with Sabrina Pauli.