

Positive polynomials on projective limits of real algebraic varieties

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(Joint work with M. Putinar)

We prove a Positivstellensatz on the fibre product of real algebraic affine varieties, and iterate it to a comprehensive class of projective limits of such varieties. This framework includes as necessary ingredients recent works on the multivariate moment problem, disintegration and projective limits of probability measures and basic techniques of the theory of locally convex vector spaces.