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 L_p Steiner formula and its coefficients

In this talk, we explore L_p Steiner formula for the L_p affine surface area. We introduce the coefficients that arise in this formula that we call L_p -Steiner quermassintegrals and discuss their properties. In analogy with classical quermassintegrals, it turns out that they also possess some nice properties. In particular, they are new valuations on the set of convex bodies which seem not to have been observed before. This is joint work with E. Werner.