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The Orlicz-Petty bodies

The geominimal surface areas are fundamental objects in convex geometry, which are continuous and affine invariant. In this talk, I will discuss how the homogeneous and nonhomogeneous Orlicz geominimal surface areas are defined via the optimization problems related to the Orlicz mixed volumes. In particular, I will present, under certain conditions, the existence and continuity of Orlicz-Petty bodies. This talk is based on the joint work with Zhu and Hong (Int. Math. Res. Notices, 2018)