

97. Zvi Artstein and Cristian Contantin Popa, **Orlicz-Young Structures of Young Measures**. Acta Applicandae Mathematicae, to appear.

Abstract. The paper examines the integration of Young functions applied to Young measures and identifies Orlicz-like structures in the space of Young measures. In particular, a convergence intermediate between the weak convergence of measures and the variational norm is determined; it serves in the completion of the Orlicz space of functions when interpreted as degenerate Young measures. Partial linear operations are defined on Young measures with respect to which the linear operations in the Orlicz space of functions are continuously embedded in the space of Young measures. This leads to a definition of convexity-type structures in the space of Young measures via a limiting procedure. These structures enable applications of Young functions arguments to Young measures. Applications to optimal control and to well posedness of minimization in function spaces with respect to convex functions are provided.

For a copy of this paper send a request to zvi.artstein@weizmann.ac.il