1087-46-92 **Anna Kamińska*** (kaminska@memphis.edu), University of Memphis, Department of Mathematical Sciences, Memphis, TN 38152, and **Yves Raynaud** (yves.raynaud@upmc.fr), Université Paris 06-UPMC and CNRS, Institut de Mathématiques de Jussieu, 4 place Jussieu, F-75252 Paris, France. *New formulas for decreasing rearrangements and a class of Orlicz-Lorentz spaces.*

We present new formulas for decreasing rearrangements of functions and sequences in the spirit of Hardy and Littlewood in the context of convex functions. We use these formulas for deducing several properties of the modular functionals defining the spaces $M_{\varphi,w}$ introduced earlier in the paper [*On the dual of Orlicz-Lorentz space*, Proc. Amer. Math. Soc. **130** (2002), no. 6, 1645–1654, by H. Hudzik, A. Kamińska and Mastyło], for describing the Köthe dual of ordinary Orlicz-Lorentz spaces in a large variety of cases (φ is an Orlicz function and w a *decreasing* weight). We study these $M_{\varphi,w}$ classes in the most general setting, where they may not be even linear, and identify their Köthe duals with ordinary (Banach) Orlicz-Lorentz spaces. We introduce a new class of rearrangement invariant Banach spaces which proves to be the Köthe biduals of the preceding $M_{\varphi,w}$ classes. (Received November 29, 2012)