

BILINEAR MULTIPLIERS ON WEIGHTED ORLICZ SPACES ON LOCALLY COMPACT GROUPS

Alen Osançlıol 1,*,

¹İstanbul Beykent University

ABSTRACT

In this work, we generalize the theory of bilinear multipliers acting on weighted Orlicz spaces from \mathbf{R}^n to locally compact abelian groups G. We focus on describing these bilinear multipliers from the point of view of abstract harmonic analysis. We obtain separate necessary and sufficient conditions for the existence and boundedness of such bilinear multipliers.

Keywords Bilinear multipliers · Weighted Orlicz spaces · Locally compact groups

References

- [1] Blasco, O. and Osançlıol, A., Notes on bilinear multipliers on Orlicz spaces, Math. Nachr. 292, 2522–2536, 2019.
- [2] Feichtinger, H.G., Homogeneous Banach spaces as Banach convolution modules over M(G), MDPI Math. 10, 1–22, 2022.
- [3] Osançlıol, A. and Öztop, S., Bilinear multipliers on Orlicz spaces on locally compact groups. J. Pseudo-Differ. Oper. Appl. 14, 59, 2023.
- [4] Osançlıol, A. and Öztop, S., Weighted Orlicz algebras on locally compact groups, J. Aust. Math. Soc. 99, 399–414, 2015.
- [5] Reiter, H., Classical Harmonic Analysis and Locally Compact Groups, Oxford University Press, Oxford, 1968.

^{*}*Corresponding Author's E-mail: alenosancliol@beykent.edu.tr*