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**Peter Loth\*** (lothp@sacredheart.edu), Department of Mathematics, Sacred Heart University, Fairfield, CT 06825. *Partial decomposition bases and partial subbases*. Preliminary report.

Warfield groups are direct summands of simply presented abelian groups or, alternatively, are abelian groups  $G$  possessing a nice decomposition basis  $X$  such that  $G/\langle X \rangle$  is simply presented. The concept of decomposition basis was generalized to the notion of partial decomposition basis by Jacoby in order to extend Barwise and Eklof's classification of torsion groups in  $L_{\infty\omega}$  to Warfield groups. In this talk, we explore some algebraic characteristics of the class of groups with partial decomposition bases. We prove a characterization of subgroups possessing a partial subbasis and discuss applications. (Received July 23, 2014)