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Bernhard G Bodmann* (bgb@math.uh.edu), 651 PGH, Math Department, Univ of Houston, Houston, TX 77204, and **Robert P Mendez**. *Binary Parseval frames from groups*.

The theory of binary Parseval frames shares similarities with that of real and complex ones. On the other hand, it exhibits subtle differences, for example that the Gram matrices of Parseval frames are idempotent symmetric matrices with at least one row having an odd weight. Here, we study binary Parseval frames whose vectors are orbits under an orthogonal group representation. In the case of abelian groups, we identify such Parseval frames with binary functions on the group that satisfy a convolution identity. More detailed structural consequences are explained. (Received January 16, 2017)