

1037-42-122

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This project continues a prior investigation of the authors with the goal of extending characterization results of convolutional tight frames from the context of cyclic groups to general finite abelian groups. Here, a convolutional frame consists of the translates of a collection of generators over a fixed subgroup. It is shown, under certain norm conditions, that tight frames with this structure are characterized as local minimizers of the frame potential. (Received January 28, 2008)