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## Abstract

A frame for a vector space is a set of vectors which behaves in some ways like a basis for the vector space while having a more flexible structure that allows for frames to be constructed to fit a variety of application situations, such as in signal processing. The frame potential function, developed in 2001, takes a frame as input and returns its “frame potential value”. This value reveals important information about the properties of the input frame. In this paper, we adapt the frame potential function to create a “relative frame potential function”, which takes one frame as input with respect to another frame. We analyze the behavior of this function to determine what information the relative frame potential value can reveal about the relationship between the two frames.

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