On some stability results of frame atomic decompositions *

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In honor of Prof. Laura Gori for her 70^{th} birthday

Abstract

This paper is concerned with the implications of sufficient conditions ensuring that a perturbation of a frame is again a frame. We emphasize how stability of frames is fundamental for numerical applications and we discuss in particular the connection between stability conditions and localization principles for frame atomic decompositions in Banach spaces.

AMS subject classification: 42C15, 46B99, 46H99, 65D99, 65J05, 65T60
Key Words: Banach spaces, Banach algebras, localization of frames, non-orthogonal expansions, numerical stability, perturbations.

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