



Banach J. Math. Anal. 8 (2014), no. 2, 30–48

BANACH **J**OURNAL OF **M**ATHEMATICAL **A**NALYSIS

ISSN: 1735-8787 (electronic)

www.emis.de/journals/BJMA/

COMPACTNESS CRITERIA IN BANACH SPACES IN THE SETTING OF CONTINUOUS FRAMES

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Communicated by D. R. Larson

ABSTRACT. To a generalized tight continuous frame in a Hilbert space \mathcal{H} , indexed by a locally compact space Σ endowed with a Radon measure, one associates a coorbit theory converting spaces of functions on Σ in spaces of vectors comparable with \mathcal{H} . If the continuous frame is provided by the action of a suitable family of bounded operators on a fixed window, a symbolic calculus emerges, assigning operators in \mathcal{H} to functions on Σ . We give some criteria of relative compactness for sets and for families of compact operators, involving tightness properties in terms of objects canonically associated to the frame. Particular attention is dedicated to a magnetic version of the pseudodifferential calculus.

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Date: Received: May 23, 2013; Accepted: Sep. 2, 2013.

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2010 *Mathematics Subject Classification.* Primary 46B50; Secondary 47G30, 46E30.

Key words and phrases. Compact set, compact operator, coorbit space, pseudodifferential operator.