

Ann. Funct. Anal. 2 (2011), no. 1, 206–219
ANNALS OF FUNCTIONAL ANALYSIS
ISSN: 2008-8752 (electronic)
URL: www.emis.de/journals/AFA/

## IDEAL-TRIANGULARIZABILITY OF UPWARD DIRECTED SETS OF POSITIVE OPERATORS

## MARKO KANDIĆ<sup>1</sup>

## Communicated by G. Androulakis

ABSTRACT. In this paper we consider the question when an upward directed set of positive ideal-triangularizable operators on a Banach lattice is (simultaneously) ideal-triangularizable. We prove that a majorized upward directed set of ideal-triangularizable positive operators, which are compact or abstract integral operators is ideal-triangularizable. We also prove that a finite subset of an additive semigroup of positive power compact quasinilpotent operators is ideal-triangularizable. Moreover, we prove that an additive semigroup of positive power compact quasinilpotent operators of bounded compactness index is ideal-triangularizable.

INSTITUTE OF MATHEMATICS, PHYSICS AND MECHANICS, UNIVERSITY OF LJUBLJANA, JADRANSKA 21, 1000 LJUBLJANA, SLOVENIA.

*E-mail address*: marko.kandic@fmf.uni-lj.si

Date: Received: 28 February 2011; Accepted: 16 May 2011.

2010 Mathematics Subject Classification. Primary 47A15; Secondary 47B65, 16N40.

Key words and phrases. Positive operators, ideal-triangularizability, upward directed sets, power compact operators, nilpotent algebras.