

Ann. Funct. Anal. 2 (2011), no. 1, 139–205 ANNALS OF FUNCTIONAL ANALYSIS al ISSN: 2008-8752 (electronic) URL: www.emis.de/journals/AFA/

OSTROWSKI'S TYPE INEQUALITIES FOR CONTINUOUS FUNCTIONS OF SELFADJOINT OPERATORS ON HILBERT SPACES: A SURVEY OF RECENT RESULTS

S. S. DRAGOMIR

Communicated by M. S. Moslehian

ABSTRACT. In this survey we present some recent results obtained by the author in extending Ostrowski inequality in various directions for continuous functions of selfadjoint operators defined on complex Hilbert spaces.

Mathematics, School of Engineering & Science, Victoria University, PO Box 14428, Melbourne City, MC 8001, Australia.

School of Computational and Applied Mathematics, University of the Witwatersrand, Private Bag 3, Wits 2050, Johannesburg, South Africa.

E-mail address: sever.dragomir@vu.edu.au *URL*: http://rgmia.org/dragomir/

Date: Received: 1 April 2010; Accepted: 16 May 2011.

1991 Mathematics Subject Classification. Primary: 47A63; Secondary 47A99.

Key words and phrases. Ostrowski's inequality, selfadjoint operators, positive operators, functions of selfadjoint operators, spectral families, spectral representation.