



Ann. Funct. Anal. 1 (2010), no. 2, 28–45

ANNALS OF FUNCTIONAL ANALYSIS

ISSN: 2008-8752 (electronic)

URL: www.emis.de/journals/AFA/

FURUTA INEQUALITY AND ITS RELATED TOPICS

MASATOSHI FUJII¹

Communicated by M. S. Moslehian

ABSTRACT. This article is devoted to a brief survey of Furuta inequality and its related topics. It consists of 4 sections: 1. From Löwner-Heinz inequality to Furuta inequality, 2. Ando–Hiai inequality, 3. Grand Furuta inequality, and 4. Chaotic order.

¹ DEPARTMENT OF MATHEMATICS, OSAKA KYOIKU UNIVERSITY, KASHIWARA, OSAKA 582-8582, JAPAN.

E-mail address: mfujii@cc.osaka-kyoiku.ac.jp

Date: Received: 1 December 2010; Accepted: 21 December 2010.

2010 Mathematics Subject Classification. Primary 47A63; Secondary 47A64.

Key words and phrases. Löwner-Heinz inequality, Furuta inequality, Ando–Hiai inequality, Grand Furuta inequality, chaotic order and operator geometric mean.