1046-47-922 Mohammad Khadivi* (mohammad.reza.khadivi@jsums.edu), Department of Mathematics, Jackson State University, Jackson, MS 39217, and Mokhtar Aouina (mokhtar.aouina@jsums.edu), Department of Mathematics, Jackson State University, Jackson, MS 39217. Inequalities and Operator Means.

The purpose of this talk is to revisit "Operator Means" and present new results as well as a conjecture. Several mathematicians such as W.L.Green, T. Morely, Anderson, and Trapp and many others have investigated the subjects to a satisfactory level.

Operator Means have played a pivotal role in applications such as "Infinite Electrical Networks", and "Shorted Operators". We will use range inclusion of operators and some aspects of spectral theory to retrieve some of the well known results about operator Means and derive some new ones. We state some of the works by William Green (2005), such as AGH (Arithmetic, Geometric, and Harmonic) inequality for operators. More specifically several theorems will be discussed and a new conjecture will be revealed. (Received September 12, 2008)