

**Sudan University of Science and Technology**  
**College of Graduate Studies**

**Weakly Singular Integral Inequalities and  
Composition Formulas in Weyl Calculus**

**متباينات التكامل الشاذة بضعف وصيغ التوازيب في حسابان ويل**

A thesis Submitted in Fulfillment of the Requirements for the  
Degree of Doctor of Philosophy in Mathematics

**BY**

**Mohammed Haroon Salih Hassan**

**Supervisor :**

**Prof.Dr. Shawgy Hussein Abdalla**

**Feb 2014**