

## POLYNOMIAL INEQUALITIES FOR NON-COMMUTING OPERATORS\*

JOHN E. MCCARTHY<sup>†</sup> AND RICHARD M. TIMONEY<sup>‡</sup>

**Abstract.** We prove an inequality for polynomials applied in a symmetric way to non-commuting operators.

**Key words.** Ando inequality, Non-commuting, Symmetric functional calculus.

**AMS subject classifications.** 15A60.

---

\*Received by the editors April 13, 2010. Accepted for publication August 8, 2010. Handling Editor: Harm Bart.

<sup>†</sup> Washington University, St. Louis and Trinity College, Dublin (mccarthy@wustl.edu). Partially supported by National Science Foundation Grants DMS 0501079 and DMS 0966845.

<sup>‡</sup>Trinity College, Dublin (richardt@maths.tcd.ie).