1015-47-272   **Vrej A Zarikian*** (`zarikian@usna.edu`), 572C Holloway Road, U. S. Naval Academy, Annapolis, MD 21402. *Alternating-Projection Algorithms for Operator-Theoretic Calculations.*

We show how alternating-projection algorithms can be used to solve a variety of finite-dimensional operator-theoretic problems, including deciding complete positivity, computing completely bounded norms, and computing norms of Schur multipliers. Time-permitting, we present applications to free group C^*-algebras and free products of matrix algebras. (Received February 07, 2006)