Objectives.

(2) Theoretical bounds for algebraic multigrid performance: review and analysis, by MacLachlan and Olson
(3) Read Section 1.2 for a background on AMG theory
(4) Read Section 2, up to Theorem 4

Questions.

(1) What do we wish to bound in the case of a $V(0, 1)$-cycle?

(2) If we assume (5), what does this mean (in words)??

(3) Consider equation (6). What does mean for this to be sharp?

(4) Mathematically, what is the smoothing assumption?

(5) Mathematically, what is the approximation assumption?

(6) Theorem 4 states that if the smoothing assumption and the approximation assumption are satisfied, then what?