## 1116-R1-224

Stephan Ramon Garcia\* (stephan.garcia@pomona.edu), Department of Mathematics, Pomona College, 610 N College Ave, Claremont, CA 91711. Advanced linear algebra: a call for the early introduction of complex numbers.

A second course in linear algebra, which goes beyond the traditional lower-level curriculum is increasingly important for students of the mathematical sciences. Although many applications involve only real numbers, a solid understanding of complex arithmetic often sheds significant light. Many instructors are unaware of the opportunities afforded by the early introduction of complex arithmetic. Most elementary properties of complex numbers have immediate matrix analogues and many important theorems can be deduced, or at least postulated, from the basics of complex arithmetic alone. (Received August 15, 2015)