

ICM-9205-38 How High-Precision Calculations Can Stimulate Mathematical Research, R.S. Varga, Appl. Num. Math., (to appear).

ABSTRACT: It comes at no surprise that ubiquitous high-speed computers are powerful tools in the hands of modern scientists. Our goal here is to show, in a few examples, how recent high-precision calculations have directly *stimulated* mathematical research in the area of rational approximation theory.

As a graduate student at Harvard University many years ago, Professor Garrett Birkhoff introduced this author to the new area of Scientific Computing, an area that still fascinates me. With a great debt of gratitude for this introduction, this article is dedicated to Professor Birkhoff on the occasion