CLAREMONT CENTER
for MATHEMATICAL SCIENCES

C C M S C O L L O Q U I U M

The ABC Conjecture

by

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Abstract: In the early 1980's W. Stothers and (independently) R. Mason discovered a new and simple inequality about the zeros of polynomials. The proof uses only basic facts about derivatives. As a corollary Mason obtained a very simple proof of "Fermat's Last Theorem" for polynomials. Inspired by Mason's observations, Masser and Oesterle proposed an analogous inequality for integers, which has come to be known as the ABC conjecture. In this talk I will discuss Mason's inequality, some of its applications, and the resulting ABC conjecture for integers. The talk should be accessible to a general mathematical audience.

About the speaker: Professor Vaaler received his B.S. from Lawrence University and Ph.D. from the University of Illinois at Urbana Champaign (1974), both in Mathematics. He has held positions at CalTech, Institute for Advanced Study, and the University of Texas at Austin, where he is now a Professor of Mathematics. Vaaler's research interests are in analytic number theory and Diophantine problems, as well as harmonic analysis and its applications to number theory and discrete geometry. He is especially well-known for his work on Siegel's lemma, extremal functions in Fourier analysis, heights of algebraic numbers, and Mahler's measure. He has written more than 60 research papers, has held numerous NSF and NSA grants supporting his work since 1977, and received several Distinguished Teaching Awards from the University of Texas. He serves on the editorial board of the Ramanujan Journal of Mathematics, and has supervised more than 30 Ph.D. students.

Wednesday, March 7, 2012, at 4:15pm

Freeburg Forum (Kravis Center, LC 62), Claremont McKenna College

Refreshments at 3:45 p.m. in Freeburg Forum Courtyard & wine and cheese after the talk in CMC Math Commons Room (Adams 208)

The dinner will be hosted by Prof. Lenny Fukshansky.
Please contact Prof. Fukshansky if you are interested in attending the dinner.