



ALGEBRA SEMINAR TALK



WITH

CHESTER WEATHERBY

Department of Mathematics and Statistics
Queen's University

FRIDAY, FEBRUARY 3, 2012

2:45 P.M. – Middlesex College Room 107

“Special values of the gamma function”

Little is known about the transcendence of special values of the Gamma function at rational points. In this talk we examine the Gamma function at points from an imaginary quadratic field. As a corollary of our analysis, we gain knowledge about values of infinite products of rational functions.



C. Weatherby



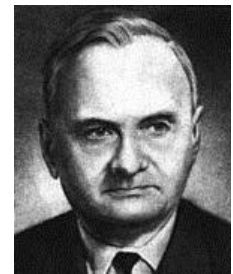
R. Murty



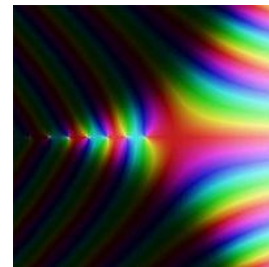
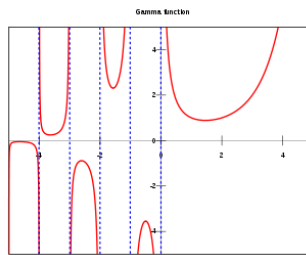
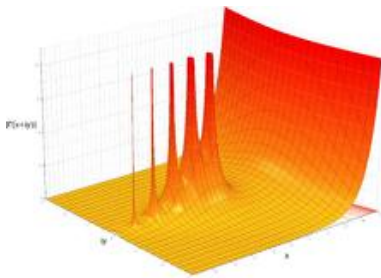
C. F. Gauss



K. Weierstrass



A. O. Gelfond



People are so excited about the values of $\Gamma(n) = (n-1)!$ that they cry out with pleasure and there is forever a shriek in this formula. What about other values of the gamma function and their other famous “brother” the Riemann zeta function? What about their connections with periods and with complex multiplication? From the time of Euler, Gauss, Riemann and Weierstrass, up to the present time, our hearts skip a beat or two with excitement, just imagining the possible proofs of algebraic independence of the values of this beautiful function. We are extremely lucky that tomorrow, Chester Weatherby, an expert and original contributor to this marvellous theory, will tell us some further news and will share with us his important insights on these values.