Colloquium

Wednesday, August 26, 2019, 4:05 p.m. (9th Period)
(in the Atrium)

Speaker: Matthew Dallas

Title: Fractional Calculus: Motivation and Fundamentals

Abstract: [Abridged] We will touch on the history of fractional calculus and discuss the motivation for the recent surge of interest in it. Although there are many definitions for fractional operators, the Riemann-Liouville formalism in a sense arises most naturally from the classical ideas of Riemann integration. Therefore, the Riemann-Liouville operators will be our primary focus. We will define them, examine some of their many interesting properties, and compute non-integer order integrals and derivatives of familiar functions.