



Department of Mathematics and Statistics

COLLOQUIUM

Tuesday, October 18th, 2015

4:00 – 5:00 pm, Adel Mathematics Bldg., Room 164
(refreshments at 3:45)

Dr. Abba B. Gumel
Arizona State University

Mathematics of Climate Change and Vector-borne Diseases

Abstract: Recent studies have established the direct impact climate variables, particularly temperature and rainfall, have on the incidence of vector-borne diseases (VBDs). The talk focuses on the design and use of climate-driven mathematical models to gain qualitative insight into the role of climate change on the transmission dynamics of VBDs, with emphasis on malaria. The epidemiological implications of climate change on existing global malaria map will be discussed.

Dr. Gumel is a Professor of Mathematics and C. Castillo-Chavez Professor of Mathematical Biology in the School of Mathematical and Statistical Sciences, Arizona State University.