

Mathematisches Kolloquium

Prof. Dr. Calvin Tadmon

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Health and environment friendly committed Mathematics: A model of the immune response to hepatitis B virus infection

Abstract:

This talk is about using mathematics for contributing to the improvement of health and protection of the environment. Our focus is on formulating and analysing partial differential equations models for describing and deeply understanding the dynamics of infectious diseases. We first present the general setting of the problem and mention some mathematical methods for analysing it. Then we apply part of the aforementioned methodology to propose and investigate a model of the immune response to hepatitis B virus infection. We also list some of our other significant contributions in the field of mathematical epidemiology. Finally, we envisage skillful incorporation of some relevant environmental drivers, including climate change, and aim at investigating their influence on the evolution of some infectious diseases.

9. November 2023, 17 Uhr c.t., Raum 05-432

16:45 Uhr Kolloquiumstee im Hilbertraum (05-432)

(Institut für Mathematik, Staudingerweg 9, 55128 Mainz)

