



# Einladung zum Oberseminar Wissenschaftliches Rechnen

Julius-Maximilians-Universität Würzburg  
Lehrstuhl für Wissenschaftliches Rechnen IX

*Prof. Dr. Bruno Buonomo*

University of Naples Federico II  
Department of Mathematics and Applications

## Modeling vaccine hesitancy using a behavioral epidemiology approach

We present some recent result regarding the study of the transmission of an infectious disease in presence of non mandatory vaccination.

In particular, we use a behavioral epidemiology approach to assess the effects of vaccination hesitancy and refusal. A key tool is the information index, which mimics the idea that individuals take their decision on vaccination based not only on the present but also on the past information about the spread of the disease. We show that vaccination hesitancy and refusal may be better contained in case of large information coverage and small memory characteristic time.

We also show that self-sustained oscillations may arise from the behavioral change of individuals. The applications to the case of meningitis and COVID-19 will be presented.

Ort: Zoom Videokonferenz

Zeit: Mittwoch, 30.06.2021, 14:00 Uhr

Zu diesem Vortrag laden wir Sie herzlich ein.  
You are cordially invited to this lecture.

*gez. Prof. Dr. Alfio Borzi*  
*gez. Prof. Dr. Frank Werner*