

O Programa de Pós-Graduação em Estatística convida para:

## WEBINAR

### **Zero-adjusted defective regression models for modeling lifetime data**

#### **Palestrante:**

Profa. Vera Tomazella (EST/UFSCar)

DATA: 01/04/2021 (quinta-feira)

HORÁRIO: 16:00h (horário local de Brasília)

O seminário é público e poderá ser assistido pelo Link

<https://teams.microsoft.com/l/meetup-join/19>.

#### **Resumo**

In this talk, we introduce a defective regression model for survival data modeling with a proportion of early failures or zero-adjusted. Our approach enables us to accommodate three types of units, that is, patients with 'zero' survival times (early failures) and those who are susceptible or not susceptible to the event of interest. Defective distributions are obtained from standard distributions by changing the domain of the parameters of the latter in such a way that their survival functions are limited to  $p \in (0, 1)$ . We consider the Gompertz and inverse Gaussian defective distributions, which allow modeling of data containing a cure fraction. Parameter estimation is performed by maximum likelihood estimation, and Monte Carlo simulation studies are conducted to evaluate the performance of the proposed models. We illustrate the practical relevance of the proposed models on one real data set on insulin use in pregnant women diagnosed with gestational diabetes performed at São Paulo University Medical School, São Paulo, Brazil

