

O Programa de Pós-Graduação em Estatística convida para:

WEBINAR

On the tail risk of contagious diseases: Comment on Cirillo and Taleb

Palestrante:

Prof. Raul Matsushita (EST/UnB)

DATA: 15/04/2021 (quinta-feira)

HORÁRIO: 14:00h (horário local de Brasília)

O seminário é público e poderá ser assistido pelo Link

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

Resumo

Cirillo and Taleb [Tail risk of contagious diseases, Nat. Phys. 16, 606, 2020] correctly warn policymakers not to ignore the tail risk of contagious diseases and not to rely on the point forecasts usually made by epidemiological models. The real risk of a pandemic should be assessed by extreme value theory through maxima or minima, not averages. They analyze data from 72 major historical pandemics using a generalized Pareto distribution and show the distribution of fatalities is heavy-tailed with infinite moments. This means more statistical information resides in the extreme and less in the events of high frequency, which become almost noise. Here, we complement their analysis and focus on the duration of such pandemics, instead. We show the expected record time of duration of a pandemic is heavy-tailed, too, with infinite variance. But this does not mean it is utterly unpredictable because there is a power law that allows one to estimate the lower bound for the record time of a coming pandemic.

[with Mateus Nagata (PIBIC) and Sergio Da Silva (UFSC/ECO)]

