

# EVOLUTION OF GROUPS AT HIGH RISK OF DEATH FROM COVID-19 USING HOSPITAL DATA

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**Abstract.** In France, death rates due to Covid-19 halved between the beginning and the end of the first wave of the pandemic. While this diminution can be explained by better knowledge of the disease, better care for the patients, and a slight increase in the proportion of young patients during the second half of the wave, it is not clear whether it is homogeneous for all age groups. In this talk, we focus on the estimation of death rates for groups at risk from Covid-19. Rather than arbitrarily building the groups at risk from patients' demographic data, they are estimated using classification trees (CART). To study the temporal evolution of groups at risk from Covid-19, we introduce statistical tools for the comparison of CART trees derived from the theory of robust estimation. This allows us to propose a statistical test to determine changes through time in the death rates for each demographic group. Finally, we illustrate this method on the first wave of the pandemic.

**Thème.** NA