## Supporting Information: The relationship between confidence intervals and distributions of estimators for parameters of deterministic models

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## 1. Supporting Information

In this document the code used generating each of the 13 figures is listed. The code works Matlab<sup>©</sup> and with free open source DEBtool\_M software - https://debtool.debtheory.org/docs/index.html.

Code was run with Matlab© R2021a.

- mydata\_F2S\_exp.m From loss function to survivor function for the exponential model.

  Calls exprnd.m and exponential.m
- mydata\_F2S\_wbl.m From loss function to survivor function for the Weibull model. Calls wblrnd.m and weibull.m
- mydata\_Ssb\_exp.m Compares SB-estimates for parameters of exponential distribution based on fitting  $\exp(-\lambda t)$  for 2 definitions of empirical survival data. Calls exprnd.m and exponential.m
- mydata\_Ssb\_wbl.m Compares SB and ML-estimates for parameters of the Weibull distribution based on fitting  $\exp(-\lambda t)^k$ . Calls wblrnd.m and weibull.m

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- mydata\_F2S\_vBert.m Generates figures 11 and 12 . Calls vBert.m and generates vBert.mat and/or else loads those data.
- mydata\_F2S\_vBert\_2D.m Generates figures 13. Calls vBert.m and either generates .mat files vBert\_2D.mat and vBert.mat or else loads those data. vBert\_2D.mat and vBert.mat are in the folder which enables the function to execute fast. User can uncomment relevant parts of the code to re-generate the data.