Dear editor,

The revised version of the manuscript includes revisions from the referee comments. The following lists indicate each comment in the order they appear in the document sent by each referee, followed by the revision made by the authors, accordingly.

Comments from Referee #1:

- #1 (page 3): 'proper' was erased
- #2 (page 4): illustrative model was renamed
- #3 (page 4): clarified roughness parameters
- #4 (page 5): table was left unmodified, since all parameters appear there, even though two of them are introduced in section 2.1.1. Table position on the pdf depends on final editing.
- #5 (page 5): see previous comment
- #6 (page 13): sentence left unmodified. Description of the model is in the following paragraph.
- #7 (page 15): corrected as suggested by ref.
- #8 (page 15): corrected as suggested by ref.
- #9 (page 15): see general comment on figure positioning
- #10 (page 16): see general comment on figure positioning
- #11 (page 16): clarified.
- #12 (page 16): clarified.
- #13 (page 16): clarified.
- #14 (page 16): see general comment on figure positioning, in interactive discussion.
- #15 (page 17): see general comment on figure positioning, in interactive discussion.
- #16 (page 17): answered in interactive discussion.
- #17 (page 19): added sentence for clarification.
- #18 (page 22): center values for prior distributions are already mentioned in the paragraph.
- #19 (page 23): see general comment on figure positioning, in interactive discussion.
- #20 (page 24): see general comment on figure positioning, in interactive discussion.
- #21 (page 25): see general comment on figure positioning, in interactive discussion.
- #22 (page 27): see general comment on figure positioning, in interactive discussion.
- #23 (page 27): added closing parenthesis.
- #24 (page 30): commentary answered in interactive discussion.

Comments from Referee #2:

- #1 (page 1): Title was left unmodified. The authors believe that the word 'calibration' is ore used in the related literature.
- #2 (page 1): 'robustly' changed by 'consistently' as suggested by ref.
- #3 (page 1): rephrased as suggested by ref.
- #4 (page 2): the citations are intended to link to relatively general papers on the benefits of probabilistic versus deterministic analysis, rather than citing papers that performed a probabilistic analysis. However, we added citation suggested by author and one more.
- #5 (page 2): Corrected citation method.

- #6 (page 2): Two citations were added (one suggested by ref). The goal of the citations is to link to papers that discuss more generally the role of ill-defined likelihood functions in the case of complex residual structures, rather than citing papers that implement them.
- #7 (page 2): The authors agree with the comment, and the wording was modified.
- #8 (page 3): no correction requested.
- #9 (page 3): corrected as suggested by ref.
- #10 (page 3): corrected as suggested by ref.
- #11 (page 4): corrected as suggested by ref.
- #12 (page 5): corrected.
- #13 (page 6): added citations (including the one suggested by ref).
- #14 (page 8): no correction requested.
- #15 (page 8): citation added as suggested by ref.
- #16 (page 9): clarification added.
- #17 (page 15): The authors decided to keep the word 'uncensored'. The pair uncensored/binary used throughout the paper tries to emphasize the fact that the underlying process is the same. Using the pair continuous/discrete might not set this clear.
- #18 (page 15): no correction requested.
- #19 (page 16): answer to the ref in pdf with replies during discussion. Added figure in the censored part of the illustrative example on identifiability of parameters of the inadequacy function..
- #20 (page 16): sentence added to clarify. Answer to the ref in pdf with replies during interactive discussion
- #21 (page 17): sentence added to clarify. Answer to the ref in pdf with replies during interactive discussion.
- #22 (page 17): corrected as suggested by ref.
- #23 (page 19): added sentence.
- #24 (page 20): modified sentence.
- #25 (page 20): no modification needed.
- #26 (page 20): no modification needed.
- #27 (page 22): sentence modified, and clarifications added as suggested by ref.
- #28 (page 24): Answer to the ref in pdf with replies during discussion. Added figure in illustrative example.
- #29 (page 28): Added paragraph in subsection 5.2 on this.
- #30 (page 29): Rephrased to avoid confusion.
- #31 (page 29): corrected as suggested by ref.
- #32 (page 30): rephrased as suggested by ref.

Sincerely,

Mariano Balbi