

Dear Dr Peres,

Thank you very much for your comments and support all along the process.

Please find below the updated abstract:

This paper analyses how the current loss modelling framework that was developed in the 1990's to respond to hurricane Andrew market crisis falls short in dealing with today's complexity. In effect, beyond reflecting and supporting the current understanding and knowledge of risks, data and models are used in the assessment of situations that have not been experienced yet. To address this question, we considered the (re)insurance market's current body of knowledge on natural hazard loss modelling, the fruit of over 30 years' research conducted by (re)insurers, brokers, modelling firms, and other private companies and academics in the atmospheric sciences, geosciences, civil engineering studies, and data sciences among others. Our study shows that to successfully manage the complexity of the interactions between natural elements and the customer ecosystem, it is essential that both private companies in the insurance sector and academia continue working together to co-build and share a common data collection and modelling. This paper (i) proves the need to conduct an in-depth review of the existing loss modelling framework and (ii) makes it clear that only a transdisciplinary effort will be up to the challenge of building global loss models. These two factors are essential to capture the interactions and increasing complexity of the three risk drivers – exposure, hazard, and vulnerability – thus enabling insurers to anticipate and be equipped to face the far-ranging impacts of climate change and other natural events.

Minor changes have been done along the document and are highlighted in green in the version with track changes.