

Interactive comment on “Rain Attenuation Prediction Model for Satellite Communications Based on The Météo-France Ensemble Prediction System PEARP” by Isabelle Dahman et al.

Anonymous Referee #2

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The paper presents a model to compute rain attenuation statistics from ensemble weather forecasting that can be used to optimize the design of satellite-based communication systems. The statistics are obtained combining the members of the PEARP ensemble prediction system and the attenuation measurements from the Ka band beacon signal of the Astra 3B geostationary satellite for the years 2014 and 2015. The model reliability is evaluated with the Astra 3B measurements in terms of forecasted and observed probability. The model resolution is investigated by resorting to the Receiver Operating Characteristic curves. The advantages of using ensemble weather forecast with respect to the classical approach based on climatological statistics (i.e., from ITU-R) are shown.

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GENERAL COMMENTS: The paper is interesting, well written and well organized. My judgement is positive. However, some general minor corrections are needed and some details about the procedure are missing or not clear (see specific comments).

Please also note the supplement to this comment:

<https://www.nat-hazards-earth-syst-sci-discuss.net/nhess-2018-94/nhess-2018-94-RC2-supplement.pdf>

Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., <https://doi.org/10.5194/nhess-2018-94>, 2018.

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