## Symposium on the hydrometeorological usage of data from commercial microwave link networks



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## Performance evaluation of rain level estimation from CMLs

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The Cramér–Rao bound (CRB), a common measure of performance estimation, which expresses a lower bound on the variance of unbiased estimators of an unknown parameter, represents the case of estimating "no rain" by  $R^*=0$ , i.e. one step estimation. Commonly, rain estimation is performed in two steps:

- 1. Detection, model selection
- 2. Estimation of selected model parameters

We propose a performance evaluation measure for the two steps estimation case.

This performance evaluation measure takes into account estimation errors of the true model parameters, miss detection errors caused when choosing the wrong model and thus not estimating the true parameters, and false alarm errors caused when choosing the wrong model and thus estimating wrong parameters.

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Session Classification: Posters with coffee and cake

Track Classification: Specific HyMet CML research topics (presentations on Day2, posters on Day1)