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Imposing overcoverage on small signals.

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An experiment reporting only upper limits must allow the exclusion of arbitrarily low signals, and even the no-signal case if the confidence intervals are to cover.

Many collaborations elect to avoid this, for example by using the CLs method to penalise downwards fluctuations, or by imposing a threshold below which signals are not excluded. In my presentation, I will review the two approaches, and discuss them from the perspective of a direct-detection experiment. Lastly, I will also mention the related issue of using different significance thresholds for confidence intervals and excess claims.

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