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## **Chance occurrence: a way to calculate the chance probability in blind searches**

### **Abstract content**

In all kinds of blind searches such as all sky survey for point sources, the number of trials is an important factor to estimate the chance probability of a signal being statistical fluctuation of background. A term 'chance occurrence' is defined in this presentation, the operation and the application of which is discussed. With help of it, search results can be physically and selectively combined together, and even results of different experiments can be incorporated. It would be a better way to understand the cumulative distribution ( $\log N$  VS.  $-\log P$ ) with the mathematical conciseness and the self-consistency, thus the often used intuitive plot turns to be only an auxiliary utility in this sense.

**If this papers is presented for a collaboration, please specify the collaboration**

### **Summary**

### **Reference**

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