

$$+ \sum_{i < j < k} \mathcal{P}(A_i \cap A_j \cap A_k) - \dots + (-1)^{n+1} P \left(\bigcap_{i=1}^n A_i \right).$$

For strongly additive measures $m : \mathcal{S} \rightarrow \langle 0, 1 \rangle$ it holds:

$$\begin{aligned} m(a_1 \cup a_2 \cup a_3) &= m(a_1) + m(a_2) + m(a_3) \\ &\quad - m(a_1 \cap a_2) - m(a_1 \cap a_3) - m(a_2 \cap a_3) \\ &\quad + m(a_1 \cap a_2 \cap a_3). \text{see}[4] \end{aligned}$$

and similarly for any $m(a_1 \cup a_2 \cup \dots \cup a_n)$. In this paper we generalize the principle for strongly additive states defined on the set of IF-sets.

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