STATES ON SYMMETRIC LOGICS: CONDITIONAL PROBABILITY AND INDEPENDENCE

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We continue the first author's study begun in [1] and study the notions of conditional probabilities, independence and ε-independence for states on symmetric logics [2]. We prove that a non-atomic state on the logic with the Lyapunov's property is determined by its specification of independent events. We present the examples of 1) Δ-subadditive but is not subadditive and 2) two-valued non Δ-subadditive states on symmetric logic. We investigate the independence relation transitivity for a Δ-subadditive state.

We also study continuity properties of conditional probabilities and ε-independence relation with respect to natural pseudometric for Δ-subadditive state. We prove that in this pseudometric space any "triangle" possesses a "perimeter" less than or equal to 2.

Finally, we pose two open problems.

REFERENCES

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