عنوان مقاله:

Multiple-Chi-square Tests and Their Application on Distinguishing Attacks

محل انتشار:

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خلاصه مقاله:

Chi-square tests are vastly used for distinguishing random distributions, but extra care must be taken when using them on several independent variables. We noticed, the chisquare statistics, in some previous works, was computed half of its real value. Thus, to avoid possible future confusions, we formulize multiple-chi-square tests. To show the application of multiple-chi-square tests, we introduce two new tests and apply them to Trivium as a special case. These tests are modifications of ANF monomial test and, when applied to Trivium with the same number of rounds, the data complexity of them is roughly times smaller than that of previous ANF monomial test.

کلمات کلیدی:

Multiple-Chi-square Test; Distinguishing Attacks; Trivium; Boolean Functions

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