







$$\alpha_i = \omega_i / \omega_{\max}, i = 1, 2 \dots n$$

Finally, the adjustment of reliability is as follow:

$$m_i^*(A_k) = \alpha_i m_i(A_k) \quad k = 1, 2 \dots r \quad (13)$$

## 4 Simulation Result

Experiment one:

$$e_1 : m_1(A_1) = 0.90, m_1\{A_2\} = 0, m_1(A_3) = 0.10$$

$$e_2 : m_2(A_1) = 0, m_2(A_2) = 0.90, m_2(A_3) = 0.10$$

$$e_3 : m_3(A_1) = 0.55, m_3(A_2) = 0.10, m_3(A_3) = 0.35$$

The fusion result of different method is show as follow:

**Table 1.** The result of five kinds formula.

Evidences	A	B	C
D-S evidence	0	0	1
Reference[3]	0.4979	0.3178	0.1843
The New Method	0.5111	0.3049	0.1840

## 5 The conclusion

In this paper, it analyzes the shortcoming of DS evidence theory and expounds relative merits of some improved methods. According to them, a new method is presented. It has a lot of advantages such as a simple form, a high precision and reflecting the uncertainty objectively. In addition, it can make a precise judgment when small evidence disturbances exist, which will make the judgment more reliability and validity.

## References

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