

WEAK ONE-WAY DEFICIT OF THE ISOTROPIC STATE

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Abstract Isotropic state is a simple case of Bell-diagonal states. We first calculate its weak one-way deficit, then we make comparisons among its quantum discord, one-way deficit, super-quantum discord and weak one-way deficit. We find that for the isotropic state, the quantum discord is equal to the one-way deficit, and the super-quantum discord is larger than the quantum discord while the weak one-way deficit is less than the one-way deficit.

Keywords quantum discord; one-way deficit; super-quantum discord; weak one-way deficit; isotropic state

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