Measure of nonclassical correlation in coherence vector representation TAO ZHOU, JINXIN CUI, GUI LU LONG[1], Department of Physics, Tsinghua University, Beijing 100084 — We consider the coherence vector representation (CVR) of a bipartitestate and obtain a necessary and sufficient condition for a zero-discord state. Based on this, a measure of quantum, classical and total amount of correlations in bipartite states is proposed in this representation. Analytical expressions for this measure are available for any bipartite states. Our measure of nonclassical correlation coincides with the geometric measure of quantum discord for some particular states. References: T Zhou, J. Cui and G L Long, PRA A84, 062105 (2011)

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