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## **Continuous variable entanglement criteria: different operational meaning and experimental implications for Gaussian states**

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We review the property of experimentally characterized entangled continuous variable states by discussing the operational meaning of entanglement signatures in mixed states. In a decohered state different entangled criteria represent different quantum correlation types so that states that violates Bell inequalities and/or are EPR-steering correlated or simply entangled states have different properties and resilience to decoherence.

The contribution will span and mark the difference between different criteria used in CV Gaussian states quantum information.