

Realistic measurement of non-commutative variables

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We study the full statistics of outputs of linear detector(s) connected to a qubit : statistics of Continuous Linear Weak Measurement. For a single detector, we reproduce the known results concerning quantum non-demolition and "undemolition" measurement. For three detectors measuring non-commutative projections of the qubit pseudo-spin we have found unexpectedly high correlation between the outputs and the final quantum state of the qubit PROVIDED all outputs exceed their typical values.