

Abstract Submitted
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Real Source Quantum Key Distribution Relays GINA HOWARD,
WOLFGANG TITTEL, BARRY C. SANDERS, IQIS University of Calgary — We
have developed a model for relay-based quantum key distribution that incorporates
multi-photon source events and dark counts at detectors. The model compares
achievable quantum key distribution rates for configurations with different numbers
of segments over a range of distances. Different photon source distributions and
dark count rates are compared for given configurations to ascertain the impact of
the source and detector imperfections on secure key rates.

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