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Eavesdropping of quantum communication from a non-inertial frame. KAMIL BRADLER, Institute of Physics, UNAM — We introduce a relativistic version of quantum encryption protocol by considering two inertial observers who wish to securely transmit quantum information encoded in a free scalar quantum field state forming Minkowski particles. In a non-relativistic setting a certain amount of shared classical resources is necessary to perfectly encrypt the state. We show that in the case of a uniformly accelerated eavesdropper the communicating parties need to share (asymptotically in the limit of infinite acceleration) just half of the classical resources.

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