COHERENTLY CORRELATED BEAMS AND THEIR USE IN QUANTUM COMMUNICATIONS

V.C. Usenko[1], *C.V. Usenko*[2], *B.I. Lev*[1,2]

[1]Institute of Physics, Nat. Acad. of Sci. of Ukraine
(*46, Nauky Ave., Kyiv 03028, Ukraine*)
[2]Taras Shevchenko Kyiv National University,
Faculty of Physics
(*6, Academician Glushkov Ave., Kyiv 03127, Ukraine*)

S u m m a r y

The statistical properties of two-mode coherently correlated states of a laser beam and the possibility to use them in the construction of secure quantum channels are described. The stability and security of a corresponding quantum-cryptographic protocol are analyzed.