1011-81-121 David W Kribs* (dkribs@uoguelph.ca). Operator Quantum Error Correction.

In this talk, I'll discuss my recent work on a new approach to error correction in quantum computing called "Operator Quantum Error Correction". This scheme makes use of a new operator formalism that provides a unified framework for the fundamental active and passive techniques for the error correction of quantum operations. This has opened up new possibilities for combating the deleterious effects of noise associated with the manipulation of quantum information encoded in physical systems. (Received August 21, 2005)