A Receiver- ess Lin for Excitab e Laser Neurons Design and Si u ation

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***Abstract*—Many-to-one connections are difficult to implement in excitable laser neurons. We design and simulate an O/E/O receiver-less link from photodetector to laser that accepts many spiking inputs (large fan-in) without significant bandwidth degradation.**

I INTROD CTION

Recent y there has been a surge of interest in the processing abi ities of dyna ica asers] 2] Many of these ode s have forged a correspondence between bio ogica spi ing neurons—co on y ode ed in co putationa neuroscience—and asers] I p e enting these devices in a sca ab e syste however requires cascadabi ity fan-out and we -iso ated input/output ports] These restrictions