

1. Record Nr.	UNINA9910347056203321
Autore	Eisele Andreas
Titolo	Millimeter-Precision Laser Rangefinder Using a Low-Cost Photon Counter
Pubbl/distr/stampa	KIT Scientific Publishing, 2014
ISBN	1000037714
Descrizione fisica	1 online resource (X, 267 p. p.)
Collana	Karlsruhe Series in Photonics and Communications / Karlsruhe Institute of Technology, Institute of Photonics and Quantum Electronics (IPQ)
Soggetti	Technology: general issues
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	In this book we successfully demonstrate a millimeter-precision laser rangefinder using a low-cost photon counter. An application-specific integrated circuit (ASIC) comprises timing circuitry and single-photon avalanche diodes (SPADs) as the photodetectors. For the timing circuitry, a novel binning architecture for sampling the received signal is proposed which mitigates non-idealities that are inherent to a system with SPADs and timing circuitry in one chip.