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Why photon counting is great: Applications in imaging and communications

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This talk will present several scenarios when very few photon counting events carry plenty of information meant to be retrieved by the measurement. Examples include: beating the Rayleigh limit by imaging a composite light source through spatial mode demultiplexing and two-photon interference; transmission of classical information in the photon-starved regime, when the power of the transmitted signal is severely limited but modulation bandwidth can be high; and finally reducing the communication complexity of comparing large datasets using quantum fingerprinting.

coffee & snacks by





