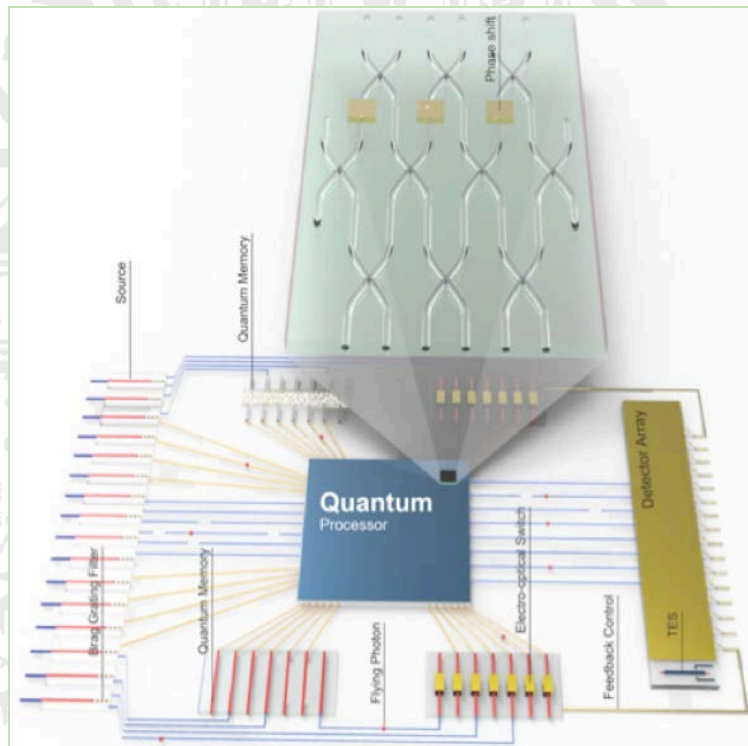


# PHYSIKALISCHES KOLLOQUIUM

AM 27. JUNI 2016 UM 17 UHR C.T.

IM GROßEN HÖRSAAL



## QUANTUM PHOTONIC NETWORKS

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Photons offer the possibility of reaching a new regime of scale of quantum systems, enabling both exploration and application, particularly in quantum simulation. Hybrid light-matter networks offer the promise of enabling access to this regime, as well as delivering robust quantum information processing technologies, from sensor arrays to secure communications to quantum simulators and eventually to a quantum computer. Progress in quantum light sources, circuits, storage and detectors, for the preparation, manipulation and measurement of multi-photon quantum states across multiple nodes of a network has opened the way to realising this promise.