



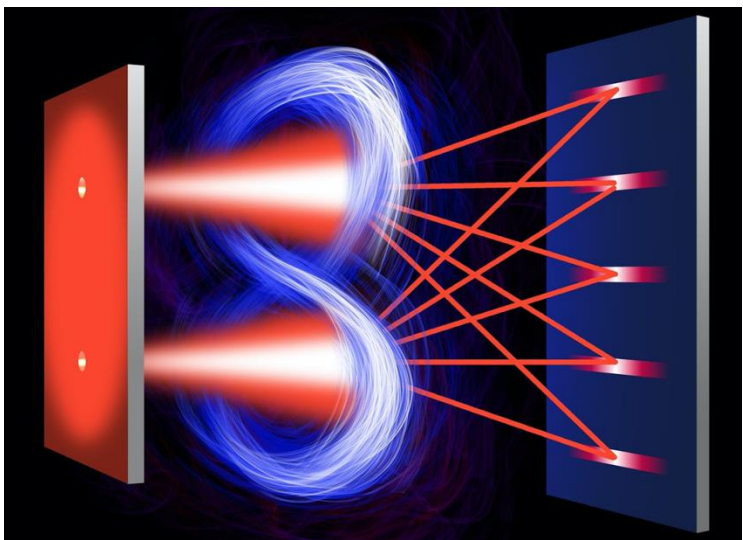
Quantum Information with Entangled Optics

– *emerging new links between quantum and classical*

Xiaofeng Qian, Department of Physics

Classically Entangled Optics

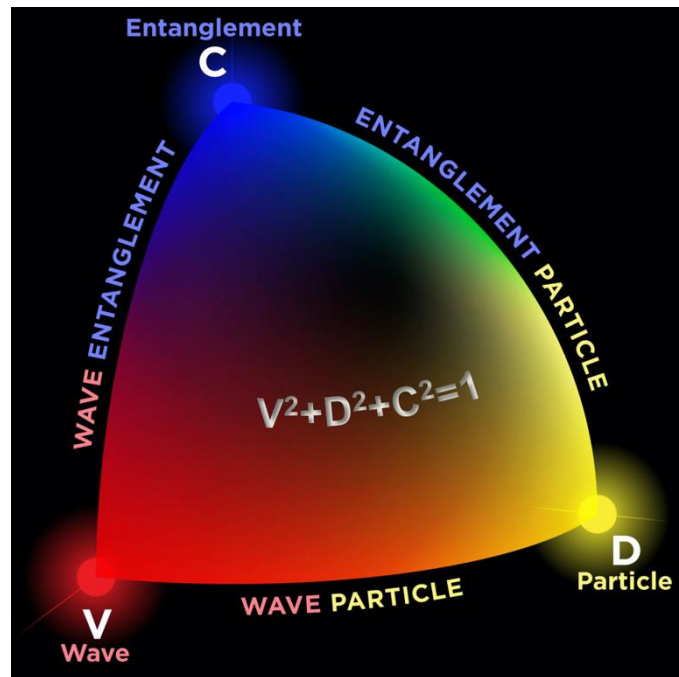
Quantum information, computation and simulation with classical optical beams



$$\vec{E}(r) = \left[\begin{array}{c} \leftrightarrow \\ \bullet \\ \bullet \\ \bullet \end{array} \right] \left[\begin{array}{c} \updownarrow \\ \bullet \\ \bullet \\ \bullet \end{array} \right]$$

Quantum Information & Foundation

Bell inequality, wave-particle duality, entanglement theory



Quantum Magnonics

Entanglement in macroscopic massive quantum systems, long range information transfer, quantum network

