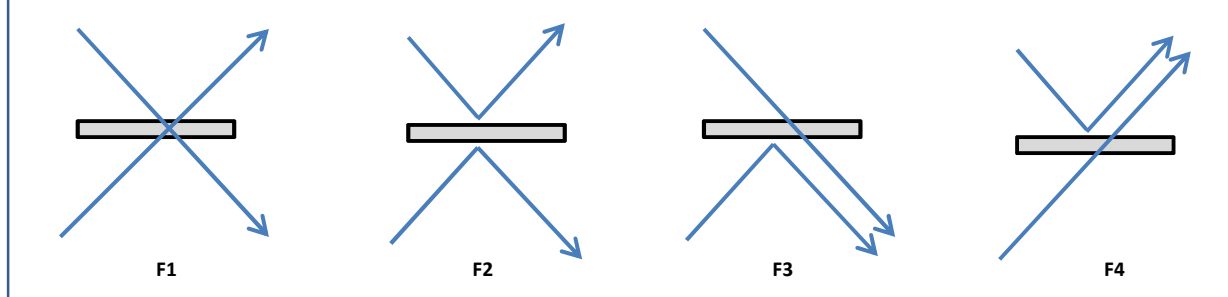


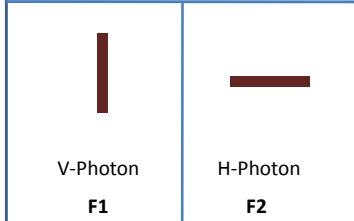
Cheat Sheet for Photon Entanglement Correlation

Vijayan Thanasekaran
17, Jan, 2014

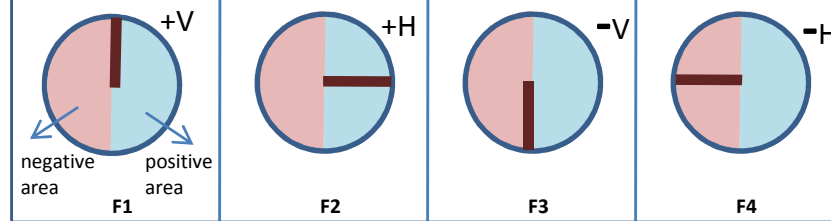
Set - 1 Hong-Ou-Mandel effect (temporal overlapping)



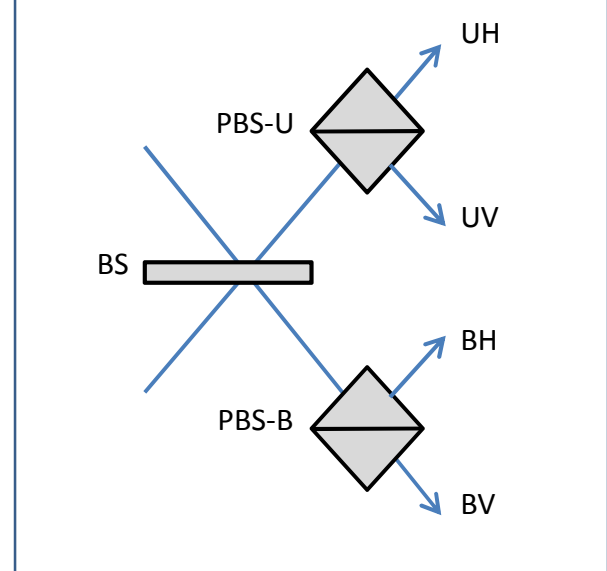
Set - 3 Photon



Set - 4 Single Photon Rotation



Set - 2 Incomplete Bell Basis Measurement



Set - 5 Bell States

| Entangled 2 Photons States | Polarization | Sign | Bell States | Incomplete Bell Basis Measurement Signature | |
|----------------------------|--------------|----------|-------------|---|---------------------------------------|
| F1 | | opposite | opposite | $\Psi^- = \frac{1}{\sqrt{2}} (H1, V2\rangle - V1, H2\rangle)$ | (UH,BV) and (UV,BH) |
| F2 | | opposite | Same | $\Psi^+ = \frac{1}{\sqrt{2}} (H1, V2\rangle + V1, H2\rangle)$ | (UH,UV) and (BV,BH) |
| F3 | | Same | opposite | $\Phi^- = \frac{1}{\sqrt{2}} (H1, H2\rangle - V1, V2\rangle)$ | (UV,UV), (UH,UH), (BV,BV) and (BH,BH) |
| F4 | | Same | Same | $\Phi^+ = \frac{1}{\sqrt{2}} (H1, H2\rangle + V1, V2\rangle)$ | |