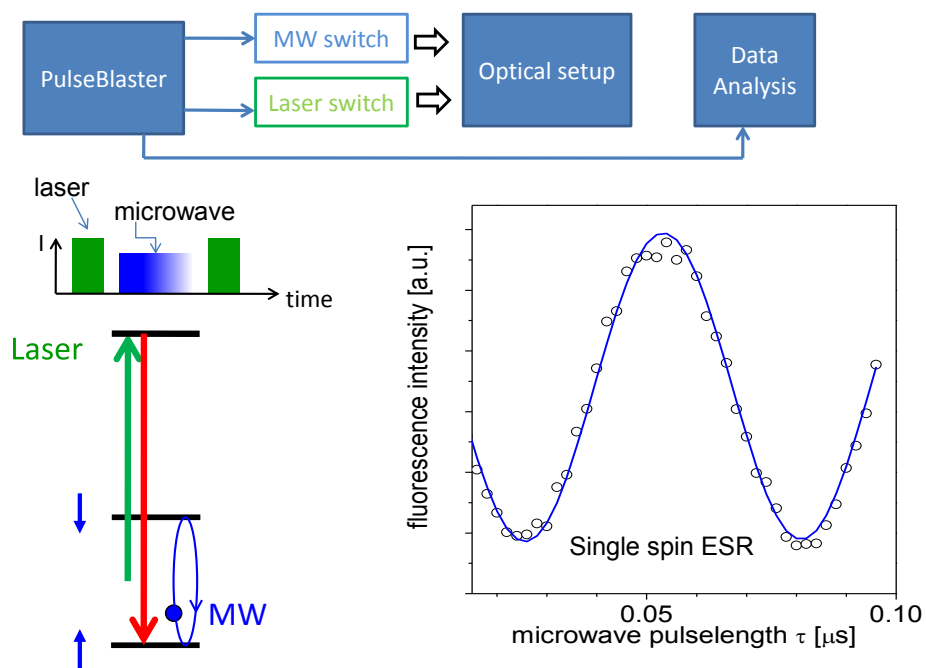


Spincore PulseBlaster for single spin ESR

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Single spin manipulation is one of the growing fields which potential applications in quantum information processing and spintronics. Optical technology for reading optically active spins associated with impurity in solids is proven to be one of the most robust. Commercially available ESR spectrometers can hardly be adapted for single spin experiments because optical detection channel have to be synchronized with microwave pulse sequence. Pulseblaster pulse generator was successfully implemented in several groups for this purpose.



Reference:

Neumann, P., Mizuochi, N., Rempp, F., Hemmer, P., Watanabe, H., Yamasaki, S., Jacques, V., Gaebel, T., Jelezko, F. & Wrachtrup, J. Multipartite entanglement among single spins in diamond. *Science* 320, 1326-1329 (2008).