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Single spin qubits in self-assembled quantum dots

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The search for a highly coherent electronic spin in the solid state has led most spectacularly to the NV colour centre in diamond. Have self-assembled quantum dots, InGaAs in GaAs, been left behind? The advantages of self-assembled quantum dots are considerable - there is a strong optical transition, advanced heterostructure technology and post-growth processing techniques - but so far the spin coherence has been at best modest. This talk will present some possible ways to out fox the decoherence processes in a semiconductor with the goal of creating a highly coherent spin.