Bacteria as Active Colloids

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Most bacteria are colloidal in size. But they are active: they grow and divide, and some can swim. I will present results of recent experiments showing how such activity gives rise to new physics. In particular, I will consider the ordering and mechanics of a growing E. coli colony in 2D, and the behaviour of swimming E. coli cells confined to emulsion drops. Time permitting, I will also compare and contrast the behaviour of swimming bacteria and artificial swimmers in the form of Janus particles dispersed in 'fuel' solutions