Viscosity, quark gluon plasma, and string theory

Viscosity is a very old concept which was introduced to physics by Navier in the 19th century. However, in strongly coupled systems viscosity is extremely difficult to compute ab initio. In this talk I will describe some recent surprising developments in string theory which allow one to compute the viscosity for a class of strongly interacting fluids not too dissimilar to the quark gluon plasma. I will describe efforts to measure the viscosity and other physical properties of the quark gluon plasma at the Relativistic Heavy Ion Collider.