

Abstract for an Invited Paper
for the DNP06 Meeting of
The American Physical Society

New Developments in the Theory of Strongly Coupled Quark-Gluon Plasma

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The talk will review new developments and also connections to other strongly coupled systems in physics. One is to strongly coupled electromagnetic plasmas, which are usually studied numerically via molecular dynamics simulations. New studies of a plasma containing both electrically and magnetically charged particles will be shown. Another is to strongly coupled gauge theories studied via AdS/CFT correspondence to string theory. New results are numerous, they include heavy quark diffusion constant, jet drag force and even development of the conical flow. Finally, there is a connection to strongly coupled fermionic atoms; new results here include usage of universal relations between those and sQGP in a color superconductor domain.