

MAR17-2016-000746

Abstract for an Invited Paper
for the MAR17 Meeting of
the American Physical Society

A Duality Web in $2 + 1$ Dimensions and the Unity of Physics

NATHAN SEIBERG, Inst for Advanced Study

A combination of ideas originating from Condensed Matter physics, Supersymmetric Field Theory, and AdS/CFT has led to a detailed web of conjectured dualities. These relate the long distance behavior of different short distance theories. These dualities clarify a large number of confusing and controversial issues in Condensed Matter physics and in the study of $2+1$ dimensional quantum field theory.