Confinement via strongly-coupled nonabelian monopoles

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New types of confinement phase emerge as singular SCFT's appearing as infrared-fixed-points of N=2 supersymmetric QCD (SQCD) are perturbed by an N=1 adjoint mass term. Based on recent remarkable developments in the understanding of infrared-fixed-point SCFT of highest criticality by Gaiotto, Seiberg, Tachikawa, we discuss physics of some such systems with SU(N), USp(2N) and SO(N) gauge groups, which show features different from, and subtler than, a straightforward dual superconductivity picture of confinement a' la 't Hooft and Mandelstam. This might suggest a new confinement picture for the real-world QCD.

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