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## **Confining Strings as Integrable Spin Chains in Large $N$ Lattice Yang-Mills Theory**

*Wednesday, 2 August 2023 09:40 (20 minutes)*

We present a novel approach to construct effective descriptions of a confining string. We consider a string pinned with heavy quark-antiquark endpoints on the lattice Yang-Mills theory (Kogut-Susskind Hamiltonian) as background with  $SU(N_c)$  gauge symmetry with large  $N_c$ . Our approach describes the dynamics of the confining string as two different spin chains, which are both integrable. In the talk, I will demonstrate it in 2+1-D as the simplest example, but it is also applicable for gauge theories in higher dimensions.

### **Topical area**

Theoretical Developments

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**Session Classification:** Theoretical Developments