Contribution ID: **109**    Type: **5th week (Formal developments and other frontiers in lattice QCD)**

# Gauging C on the Lattice

*Tuesday, November 12, 2024 2:00 PM (1 hour)*

We will discuss general aspects of charge conjugation symmetry in Euclidean lattice field theories including its dynamical gauging. As an application, we construct O(2) gauge theory on the lattice using a non-abelian generalization of the Villain formulation. This lattice discretization preserves a myriad of generalized global symmetries of the continuum theory, and we describe how to construct the associated symmetry operators and discuss their implications and associated selection rules.

**Primary author:**   JACOBSON, Theo (University of California, Los Angeles)

**Presenter:**   JACOBSON, Theo (University of California, Los Angeles)

**Session Classification:**   Seminar (5th week)