



Contribution ID: 438

Type: **Poster**

## Towards a discretization of supersymmetric QCD

*Tuesday, 30 July 2024 17:15 (1 hour)*

We study possible discretizations of the action of supersymmetric QCD. Supersymmetry is broken on the lattice and improved lattice formulations should reduce the amount of fine-tuning required to recover it in the continuum limit. The discrepancy between the conventional scalar field discretization and the Wilson fermion discretization contributes to the breaking of supersymmetry. We investigate an alternative formulation of the scalar sector, that avoids part of this mismatch. In addition, we examine the properties of the scalar sector of  $\mathcal{N} = 1$  super QCD using this alternative discretization and its connections to other theories.

**Primary author:** CARSTENSEN, Enno (Karl-Franzens Universität Graz)

**Co-author:** BERGNER, Georg (University of Jena)

**Presenter:** CARSTENSEN, Enno (Karl-Franzens Universität Graz)

**Session Classification:** Poster session and reception

**Track Classification:** Particle Physics Beyond the Standard Model