

# SU activity summary

- members: one professor ( + 1 professor expected in 2022 + additional students/postdoctors)
- research areas
  - theoretical study of QCD phase diagram
  - quantum error correction
  - + jet physics in heavy ion collisions ?????

- past year's activity
  - running parallel code for a quantitative study of in-medium quarkonium behavior on large quenched lattices
  - 1 publication for monte Carlo simulation study of statistical mechanics model related to quantum error correction for 1-D repetition code (D. Vodola, M. Rispler, SK, M. Müller, "Fundamental thresholds of realistic quantum error correction circuits from classical spin models", arXiv:2104.04847, accepted for publication in "Quantum" )

# SU activity summary

- research plan for 2022
  - path integral approach of false vacuum decay/tunneling
  - a quantitative study of in-medium quarkonium behavior using large quenched lattice simulation
  - further study in quantum error correction
  - ?????
- budget plan for 2022
  - 2 to 3 month visit to CERN (S.Y. Kim and [Saehanseul Oh](#))
  - [support for a postdoctor + students](#)