Contribution ID: **31** Type: **not specified**

Gradient flow exact renormalization group: Illustration in the gauged NJL model

Friday, 1 December 2023 09:00 (1 hour)

Wilson's exact renormalization group (ERG) is a fundamental idea for defining quantum field theory at a non-perturbative level. The conventional ERG based on the momentum cutoff, however, cannot preserve the manifest gauge invariance and this fact hinders non-perturbative analyses of gauge theories using ERG. In this talk, I explain the gradient flow exact renormalization group (GFERG), which we have recently proposed and developed as an ERG that preserves the manifest gauge invariance. Here, in particular, we apply the GFERG to the U(1) gauged Nambu–Jona-Lasinio model and illustrate the advantage the GFERG offers compared to the conventional ERG.

Presenter: Prof. SUZUKI, Hiroshi (Kyushu University)

Session Classification: Plenary Session