2+1 flavor QCD with the fixed point action in the $\epsilon$-regime

Presenter: Dieter Hierl — University of Regensburg
P. Hasenfratz, D. Hierl, V. Maillart, F. Niedermayer, A. Schäfer, C. Weiermann and M. Weingart
BGR (Bern-Graz-Regensburg) Collaboration

We generated configurations with the approximate fixed point Dirac operator $D$ on a $12^4$ lattice with $a \approx 0.13\text{fm}$ where the scale was set by $r_0$. The measurements were made using $D$ and the overlap operator constructed from $D$ as the kernel. The results are compared with random matrix and chiral perturbation theories.