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UNIVERSITÄT MAINZ



Theorie-Palaver

Sept. 22, 2023 at 10 a.m. c.t.
THEP seminar room (05-427)

Hidenori SONODA
Kobe University

ERG and diffusion equation

I would like to explain how the construction of a Wilson action in the exact renormalization group (ERG) formalism is related to diffusion equations for the fields. By making the diffusion equations gauge covariant, we have managed to linearize the BRST invariance of $U(1)$ gauge theories. But with YM theories, the BRST invariance remains non-linear, and we have not been able to solve the constraint. All this has been done in collaboration with Hiroshi Suzuki (Kyushu University).

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