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## **B3: Flux tube profiles in two-color QCD at low temperature and high density**

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We investigate the temperature and density dependence of the color flux tube structure of dense two-color QCD with  $N_f=2$  Wilson fermions by using a lattice simulation. From Refs. [1] and [2], we have already clarified the rich phase structure in the low temperature region, including the hadronic and superfluid phases. In this study we measure the quark-antiquark potential and color flux tube profiles in such a low temperature region and find that even in the high density superfluid phase, the color electric field is squeezed into a flux tube as in the low density hadronic phase.

### Reference

- [1] Kei Iida, Etsuko Itou, Tong-Gyu Lee, Prog. Theor. Exp. Phys. 2021, 013B05 (2021)
- [2] Kei Iida, Etsuko Itou, Tong-Gyu Lee, J. High Energy Phys. 2001, 181 (2020)

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